NOTES FOR A

Clinical Lecture

ON

DISSECTION POISONS.

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THE subject of dissection wounds has, of late years, seemed less important than it was thought to be some thirty years ago. When I was a student, it was believed that such wounds were not rarely fatal, and that frequently they led to severe disease. Now, they are made light of. My recent illness disposes me to think this levity misplaced. It is very improbable that there should be any change in the virulence of poisons generated in the dead body; and if there be any change in the consequences of inoculation with them, I should think it due to the changes in the manner of treating them. In my student-days the first signs of inflammation following such wounds were generally treated with leeches, purgatives, spare diet, and other depressing means; now, as for many years past, the prescription is good food, wine, rest, and, above all, fresh air. You may be certain that this is the better prescription; and I believe that if I could have availed myself of the whole of it, especially of the last two ingredients, I should have averted most of the troubles that I have lately suffered.

Let me now speak to you about these troubles. And, first, as to their source and the conditions on which they depend. The material with which I was infected was in the dead body of the patient on whose case I last lectured.* He died after lithotomy, with acute cellulitis at the back of the pelvis, and with acute pleurisy; both of which, I believe, were of pyæmial origin. The grounds for this belief I stated to you when, at the last lecture, I showed you the morbid structures removed after death. I refer to it now only that I may remind you of the probability that the inflammatory products of pyæmial disease are especially virulent after death. The most dangerous examinations appear to be those of women who have died with puerperal peritonitis; and most of the cases thus named are pyæmial. I can only suspect that the material which poisoned me was in the pleuritic fluid, in which my hands were long soaked; but what the poisonous material—the virus—was, neither this, nor any record of similar cases, enables me to tell.

Whatever the virus was, it soaked through my skin; I had no wound or crack of any kind. Mr. Young, who began the examination, cut himself and suffered no harm. I had a sound skin, but one not impenetrable, and through it the virus worked its way. Mr. Young did what I advise you to do in any similar case. He washed his hands, sucked the cut part, made it bleed freely, and then took care of himself, and did not rub the cut part with nitrate of silver. He thus reduced his risk to less than that of the absorption of virus through sound skin.

This absorption is generally spoken of as if it were a strange and rare fact. Rare it may be, but strange it is not; for thus it is that, most commonly, the poison of chancre passes through skin and that of gonorrhœa through mucous membrane, and thus that the irritant matter of cantharides and other skin-irritants passes to the cutis, and from it may be absorbed. A wound or a crack that exposes a vascular surface is doubtless very favourable to infection by any virus; but it is not essential; I wish it had been and were still so.

Thus, then, this virus passed into me; and I will tell you presently some of the mischief that it did. But first let me say that this mischief would not have happened but that there was in me something that made my blood, or some of my textures, susceptible of such diseased processes as the virus could excite. For not all men can be made ill by a virus from a dead body, nor can the same man be made ill at all times; but there must be what is called a fitting soil for the virus to work in. We know no more what this soil is than we do what the virus is; we have to use figurative expressions; but we need not doubt that they imply facts, and that, for any living body to be made diseased by a dead one, there must be certain living materials which can be diverted by the dead ones from their normal relations and turned into a morbid course.

A chief interest in reference to these various susceptibilities of the influence of virus from dead bodies is, that one may become insusceptible. They who are day after day engaged in dissections or in post-mortem examinations usually acquire a complete immunity from the worse influences of the virus. They may suffer local troubles from it, and some among them may get that curious warty affection of the skin of the hands or fingers which Dr. Wilks described in the Guy's Hospital Reports; or they may lose health through the influence of bad air or over-work; but they do not suffer with any infection of the lymph or blood.

Such an immunity as this I enjoyed when I was demonstrator of morbid anatomy, and made almost daily post-mortem examinations. It mattered not what was the disease of which the examined body died, or what was the state of my skin, sound or cracked or wounded: nothing hurt me; and this immunity lasted many years.

A similar immunity in the case of many fevers is possessed by those who have passed through one attack. It is, as you know, very rare to have a second attack of scarlet fever or of typhus; and it is, perhaps, more rare to have a second indurated chancre, or a second complete series of secondary symptoms. In these cases we believe that the first attack alters the blood or tissues in such a manner that they are no longer susceptible of the same morbid changes as they were, even though in all other respects they appear unaltered. But I think it is not in this way that the immunity from the infections of dead bodies is obtained; for though few demonstrators or others constantly engaged in morbid anatomy escape quite unscathed, yet some do so; and these may be enough to prove that the immunity is acquired by what we may call custom. Just as a man, beginning with small quantities of strong drink, and gradually increasing them, may never get drunk, even though he may at last drink hugely too much; or as a Styrian (if the stories be true) may take arsenic till he can hardly be poisoned with it, so may anyone by custom become insusceptible of the evil effects of the corpse-poisons. It may be that his blood and tissues become less alterable by alien matters, or that the living parts acquire more power of assimilating or excreting the dead materials that are introduced among them: how it comes to pass we cannot surely tell, but the fact of an acquired immunity seems certain.

I wish some of you would study these immunities more closely than anyone has yet done. They are of infinite interest in physiology, for they show a striking contrast between dead and living things. *Gutta cavat lapidem* is a pattern of many proverbs that express the popular knowledge that all dead things yield to the repeated application of small forces; yet living things rather strengthen themselves against such forces. Not that this or any other contrast between dead and living things is absolute or constant; yet this, like all the rest, is worth most careful study. And of still more interest in pathology are these acquired immunities; for as yet we know scarcely more than the bare fact. Some immunities are local—such as that of which anyone will tell you who has had a long succession of blisters on the same place. He finds that at last he can be blistered there no more; yet you may blister him on some other part. And such, I suspect, is the immunity from the virus of soft chancre which may be obtained through frequent inoculations; but of this I have had no experimental knowledge. I think, however, that I have had personal knowledge of acquired immunity from another kind of inserted poisons—that, namely, of fleas, bugs, and the like pests of vacation life. Let me commend this subject of study to any of you who are not unwilling to be martyrs to science. I think you will find, as I have found in some continental tours, that for the first nights you will be driven half wild by the vermin of the bed or of the air, but that after a time you care less for them, and that at last you become indifferent to them; not because they leave you alone, but because their virus no longer irritates the blood or the textures that at first fiercely resented them.

This instance may seem a trivial one; yet I believe that in it you may find illustrations of much more serious things,

* It is recorded in THE LANCET of May 27th (p. 711).

even of that doctrine of syphilisation of which you have heard so much.

But now observe: this immunity, it seems, may be gradually lost, just as that after vaccination may be; the influence, as the expression is, gradually wears out. My case is evidence of this. Years ago no virus of a dead body could hurt me; but then came a time in which I made few or no examinations after death. I stood by and watched others making them; and I became again susceptible to poisons that were once innocuous. My blood and textures regained the state they had before ever virus was introduced into them, and I became again more poisonable.

Think how curious a fact this, which is only one of a large class, is. Being more susceptible of morbid influences, one seems less healthy; but, in truth, one has become more healthy. Just as in vaccination, or in scarlet fever, one's blood or textures, or both, being so altered that the same poison will no longer act on them, they seem the better for the change; yet they are morbidly altered. And then, for years afterwards, by the exact assimilation of the nutritive process, they are maintained in the same morbid state; like a scar which, useful as it is, is yet a morbid structure. And as a scar, if not too deep, gradually wears out—that is, gradually reverts to the healthy skin-structure,—so is it with the blood and textures of the once infected person. Recovering their natural condition, they become again susceptible of infection; becoming again healthy, they become what may seem weaker, and are more liable to disease.

Think, again, of the long time during which facts like these prove that a process of recovery from disease may continue before it is perfect. The years through which a man must pass before he becomes liable to a second attack of these diseases tell the time that is required for his complete recovery from the first. Let the fact teach you both patience and hope in your treatment of the consequences of disease. It makes me believe that I might now, with perfect safety, examine any dead body whatever.

Now let me tell you, with commentaries, what the virus did in me. The examination was made on the 4th of February, and after it I finished a long day's work, feeling unharmed. On the 5th, which was a Sunday, I felt, not ill, but tired, and I spent the greater part of the day idly, falling asleep over good books. On the 6th I lectured, in the morning, on the morbid structures obtained from the examination, and the theatre was, as usual on Mondays in the winter, very cold. I was chilled and very tired; but a heavy day's work had to be done, and I did it. I had observed three or four small pustules on my hands, especially one on the back of my left hand, but they caused no discomfort, and I had no suspicion of being hurt till about five o'clock, when I felt my left axillary glands tender, and could not press my arm against my side. At half-past eight, when I got home, I was cold and ill; the mischief was begun.

I mention these things that I may illustrate, as I have so often done, the influence of fatigue in developing disease, or at least making one susceptible of it. I can be as sure of this as of anything which has not occurred, that if I could have rested for two or three days after the insertion of the virus, it would have done me little or no harm. I cannot tell you whether it is by mere diminution of a normal power of resisting changes, or (as Dr. Carpenter has shown to be much more probable) by the production in the fatigued organs of some material on which morbid poisons may multiply or flourish; but you will find in every day's practice that fatigue has a larger share in the promotion or permission of diseases than any other single casual condition you can name. *(To be concluded.)*

A WOMAN WITH FOUR BREASTS.—M. Lorain, of Paris, mentions the case of a woman, who, being examined after a premature confinement, presented four breasts. Two of these occupied the normal region, and contained some milk; the two others were situated near the axillæ, and of the size of a small orange. Menstruation had been quite regular, but at each period she experienced pain in the smaller breasts. The latter contained but very little colostrum, and the milk-globules were below the ordinary size. There was milk in the four breasts in spite of severe feverishness; but the secretion of the supplementary mammæ, being microscopically examined, was found less rich than the milk of the normal breasts.

Lettsomian Lectures
ON
EXCISIONAL SURGERY OF THE JOINTS FOR DISEASE.

Delivered before the Medical Society of London.

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LECTURE II.

THE KNEE-JOINT (CONCLUDED).

Amputation of a limb is generally compared with excision of a joint for disease, as if the two were *alternative* operations. Now, the incurability of joint disease by non-operative treatment is indeed the condition eligible either for excision or for amputation. But in what does such incurability consist? The whole diversity of opinion and experience among surgeons in regard to the propriety of excision *versus* amputation springs from a twofold view of the nature of the state in question. Thus, scrofulous disease of the knee-joint may be considered incurable, without operative interference, when the disease has advanced to destruction of the articular cartilaginous surfaces of the tibia and femur without the supervention of anchylosis, so that the joint has become functionally useless; or, the same disease may not be regarded as incurable until it has advanced to a further and even to an extreme state of disorganisation—dislocation (partial or complete), abscess, sinuses, profuse and long-continued discharge, with the constitutional disturbance of hectic and exhaustion. The turning-point of distinction between these two opposite states of the same disease is this: in the one case the joint has become functionally useless; in the other, to this condition is generally superadded a constitutional state of exhaustion which leaves no period of time nor vital reserve-power sufficient for any prolonged process of reparation after operation—averaging three months for the knee and hip, and six weeks for the elbow.

But this measure of time and of reserve-power are the essential elements of that reparative process which will inevitably be necessary to effect osseous or ligamentous union, as the case may be, and thence a successful result after *excision*. Consequently, compared with *amputation*, the operation of excision, under the adverse circumstances of *advanced* disease, will be singularly unsuccessful; whilst, at an *early period*, recourse to amputation is unnecessary and unjustifiable.

Excision and amputation for joint disease are, therefore, not alternative operations for the surgeon's choice of one or the other. The comparatively early period for excision is too early for amputation, and the comparatively late period for amputation is too late for excision. When either operation becomes justifiable for joint disease, the other should not be entertained.

Excision in relation to Life, or the Mortality after Operation.—I must now ask your attention for a short time while I marshal before you and wield some large masses of figures. Taking the results of large collections of cases, those also in different hospitals of the United Kingdom as smaller collections, and from the practice of individual surgeons as still smaller numbers, three *general* conclusions may be established respecting the rate of mortality from knee-joint excision for disease:—1. A diminishing mortality as the operation has continued to be practised. 2. Since the revival of the operation, and more recently, an average death-rate of 1 in 4 or 5 cases. 3. Very different death-rates in the hands of individual surgeons, varying from 1 in 2 or 3, to 1 in 12 and 1 in 19, or even less. The conditions of disease, both local and constitutional, in the cases selected for operation, have doubtless mainly determined this different resulting mortality, and not uninfluential has been the mode of performing the operation, and more significant the after-treatment. But the operation and after-treatment in the particulars essential to success have, perhaps, chiefly affected the resulting state of the limb. The

general results respecting the mortality of knee-joint excision for disease in large collections of cases, and those of different hospitals in the United Kingdom during a period of the last five years, are exhibited in the following collections of cases, which illustrate the three general conclusions already referred to.

For the special returns relating to hospitals and to individual surgeons, I am indebted to those whose names are stated below.

It is scarcely necessary to observe that, of the large total number of cases, some are necessarily included in more than one collection.

1. Collected by Mr. Butcher. Period 1850–54: Number of cases, 31: recoveries, 25; deaths, 6 (mortality, 1 in 5). Period 1854–56: Number of cases, 50: recoveries 41; deaths 9 (mortality, 1 in 5 or 6).

2. Collected by Mr. Price; period 1760–1860, extended by Mr. H. Smith to 1865.—Number of cases, 316: recoveries, 240; deaths, 76 (mortality per cent., 24·05, or 1 in 4). Amputations after excision, 30: recoveries, 30; deaths, 9.

3. Collected by Dr. MacCormac.—Number of cases, 74: recoveries, 49; deaths, 25. Amputations after excision, 11: recoveries, 7; deaths, 4.

4. Collected by Mr. W. P. Swain.—Number of cases, 82: recoveries, 67; deaths, 15. Amputations after excision, 4: recoveries, 4; deaths, 0.

5. Collected by Dr. R. Hodges.—Number of cases, 208: recoveries, 106; deaths, 60 (mortality per cent., 28·84, or 1 in 3 or 4). Amputations after excision, 42: recoveries, 7 (?); deaths, 9.

6. Collected by Heyfelder.—Number of cases, 213: recoveries, 149; deaths, 64.

7. Collected by M. L. Peniere (British and foreign); period 1762–1869.—Number of cases, 431: recoveries, 300; deaths, 131, including 47 amputations and 6 re-excisions.

The following statistics have been collected by myself from the hospitals named:—

1. King's College Hospital; period 1850–70. (Per Mr. H. Smith.)—Number of cases, 80: recoveries, 57; deaths, 23. Amputations after excision, 8: recoveries, 4; deaths, 4.

2. St. Bartholomew's Hospital; period 1866–70. (Per Mr. Callender.)—Number of cases, 37: recoveries, 28; deaths, 9. Amputations after excision, 3: recoveries, 2; 1 death.

3. St. Thomas's Hospital; period 1866–70. (Per Mr. F. Churchill.)—Number of cases, 22: recoveries, 14; deaths, 4. There was one amputation after excision, which resulted in death. (Four cases under treatment.)

4. Royal Free Hospital.—Number of cases, 20: recoveries, 18; deaths, 2. Amputations after excision, 6, of which 3 were re-excisions; recoveries, 6.

5. Chalmers' Hospital, Edinburgh; period last six years. (Per Mr. P. H. Watson.)—Number of cases, 18: recoveries, 16; deaths, 2.

6. Charing-cross Hospital; period 1870. (Per Mr. Hancock.)—Number of cases, 11: recoveries, 11 (?).

7. Royal Infirmary, Liverpool; period last five years. (Per Mr. W. J. Cleaver.)—Number of cases, 11: recoveries, 10; 1 death. Amputations after excision, 3: recoveries, 3.

8. Westminster Hospital; period last five years. (Per Mr. F. Mason.)—Number of cases, 10: recoveries, 8; deaths, 2. There was one amputation after excision, which recovered.

9. London Hospital; period last five years. (Per Mr. M'Carthy.)—Number of cases, 8: recoveries, 5; deaths, 2; 1 progressing favourably.

10. Royal Albert Hospital, Devonport; period last five years. (Per Mr. W. P. Swain.)—Number of cases, 6: recoveries, 6. One amputation after excision, ending fatally.

11. Great Northern Hospital; period last five years. (Per Mr. J. Willis.)—Number of cases, 4: recoveries, 2; deaths, 2.

12. St. Mary's Hospital; period last five years. (Per Mr. Gascoyen.)—Number of cases, 2: 1 recovery; 1 death.

13. Guy's Hospital; period 1864–69, or five years. (Per Mr. T. Bryant, from Dr. Steele, superintendent.)—Amputations after excision, 4: recoveries, 3; 1 death.

Comparative Mortality of Excision, and Amputation in the Thigh.—The results of thigh-amputation for disease, as noted in University College Hospital, are thus stated by Mr. Erichsen. Of 34 cases of such amputations, 7 died; or say 1 in 5—a mortality of 20½ per cent. Malgaigne's statistics from the Parisian Hospitals show a far higher mortality: in 153 cases of thigh-amputation for disease, 92 died, being a mortality of 60 per cent. Mr. Syme represents the mortality as yet higher—from 70 to 80 per cent., taking amputations of the thigh generally. Approaching larger masses of results, we find that in Mr. T. Bryant's collection of 1168 cases of thigh-amputation, 254 died, or 21·7 per cent.; and in Carrick's still larger collection of 1413 cases, 434 died—a mortality of 30·71 per cent., or 9 per cent. higher mortality than in the former series. These large collections of cases, however, are indiscriminate. They include excisions for injury as well as for disease, and the latter not exclusively such as might be eligible for excision. But Mr. Bryant has supplied 188 cases of amputation of the thigh for chronic disease of the knee-joint; and of these there were 41 deaths—1 death in between 4 and 5 cases, or a mortality of 21·8 per cent. This nearly corresponds to the death-rate first stated; and it about equals the death-rate after excision. But if the mortality of thigh-amputation, and of excision of the knee-joint, both for disease of the joint, be thus about equal, the patients who survive either operation have a very different advantage; the one being without a limb, the other with the limb preserved.

State of the Limb.—The functional result of excision, whether of the knee-joint or other joints, is generally expressed in rather vague terms—e.g., useful limb, without specifying the kind of union, or the position of the limb, as straight or bent. This indefinite mode of record omits much satisfactory information as to the state of the limb after operation. As a specimen of the average record of results under this head, I may cite from Mr. Butcher's collection of cases, referred to in considering the relation of knee-joint excision to the mortality after operation. Of the 25 recoveries, out of 31 cases, 17 were enabled to walk about with "perfect use" of the limb. Of the 41 recoveries, out of 50 cases, 33 had "useful limbs," the remaining 7 being subjected to amputation.

Compared with the stump after amputation, Sir William Fergusson justly observes,—"A well-healed stump never in reality improves, unless, possibly, it gets more callous, whilst often it gets more tender and irritable; but the seeming perfect result of excision at the end of six or twelve months, just when stumps are generally at the best, is no criterion of true perfection. If the limb is properly managed afterwards, it goes on improving for months—aye, for years. The thigh, leg, and foot enlarge in bulk; and in particular, with this change, the leg and foot improve in muscular energy." But why draw any further comparison between a stump—a truncated limb, and a slightly shortened limb, even although the stump be fitted and set off with an artificial leg?

The *average duration* of the process of recovery is considerable. According to Dr. Hodge's tables, the duration of treatment, when the patella had been removed, in 48 cases, was 225 days; and when that bone is believed to have been left, in 38 cases, this period extended to 255 days. The average duration, therefore, was about eight months. But in 8 successful cases, all of them children, at St. Thomas's Hospital, the average duration of treatment, as reported by Mr. Allingham, was only 206 days, or about seven months. Many cases also progress more rapidly than this; and in my first case of excision of the knee the period of osseous union was only 60 days, or two months, the knee then supporting the weight of the trunk. This patient was thirty-three years old at the time of operation, with previous synovial disease of six years' duration; and the union has stood the test of twelve years' free use of the limb. The *average* period for recovery, in my own cases, has been, for the production of firm or perhaps osseous union, three months; and to regain a useful limb, three months more, in a starched bandage, with gentle use of the limb gradually, for support and progression. Subsequently the limb will regain bulk and strength by increasing muscular development.

The *permanent* character of a successful result after excision, and the *average frequency* of such result, are questions severally omitted from statistical records. Both these important elements are noted in the results of my own cases.

The *growth of the limb* in length, after excision of the knee-joint, is a question respecting which the results are conflicting. The question can only affect the propriety of this operation in *youth* or *childhood*. It was originally suggested and investigated by Professor Humphry, of Cam-

bridge, in an admirable paper on the Growth of Bones in their Long Axis at their Epiphysial Cartilages. The two epiphyses—upper and lower—in a long bone are not equally productive of its longitudinal growth; one is a more active organ of growth than the other. In the tibia and humerus the upper epiphysis is thus more important; in the femur and radius, the lower epiphysis. But the lower femoral epiphysis would appear to be *relatively* more important to the longitudinal growth of the femur than the upper tibial epiphysis is to the elongation of the tibia. Hence, with reference to excision of the knee-joint, removal of the *femoral* epiphysis will more especially arrest the subsequent growth of the limb in length. The growth of the *foot* also is arrested, so that it may become insufficient to sustain the weight of the body. All this arrest of development may be reduced still further by the imperfect growth from previous disease.

The practical deduction, therefore, seemed to be, that if, by excision of the knee in a growing subject, the epiphyses and epiphysial cartilages of the tibia and femur be removed, this operation will *invariably* tend to arrest the growth of the limb subsequently. Mr. Pemberton, of Birmingham, followed, in 1859, with a case in which a youth, having been operated on in 1854, the limb in 1859 was nine inches shorter than its fellow. Another case, from the practice of Dr. Keith, of Aberdeen, showed a deficiency in length of five inches during six years' growth. Counter-evidence on this question is adduced by Mr. Butcher. Dr. Keith himself wrote to the latter eminent surgeon, in 1856, that "J. Hay's limb, operated on November, 1853, is plump, and growing in length as fast as his sound limb. So also is J. Keith's, operated on May, 1854." Corroborative cases are cited from reports by Mr. Page, of Carlisle, and Mr. Brotherston. In a case where the entire epiphyses were removed by Mr. C. Heath from the knee-joint of a boy aged eleven years and a half, subsequent measurements showed that the *loss* of growth, in length of the limb, was only two inches in five years and a half. This case also illustrated the fact that such arrest of growth depends more on the removal of the lower epiphysis of the femur than the upper epiphysis of the tibia, the one bone growing in length more than the other after removal of its epiphysis in the knee-joint. Thus, the femur, as compared with its fellow, had lost four inches; the tibia, compared with its fellow, had lost only half an inch,—making an absolute difference in the whole length of the limb of four inches and a half.

Still, allowing for these and other exceptional cases, the rule already laid down as to excision of the knee-joint in young subjects, under the age of about ten or twelve years, should be observed.

Re-excision.—This proceeding is particularly advocated by Sir William Fergusson. In his "Lectures on the Progress of Surgery" he urges re-excision after a fair trial of the result of the original operation. Then he observes: "I believe dealing freely with the wound, opening sinuses, clearing away strumous effete material, picking away loose necrosed pieces of bone, gouging away bare material of the kind—aye, even opening up the whole surfaces, and sawing off fresh pieces of bone, to be better than amputation." My own experience of re-excision, as to the knee-joint, may be thus summarily stated. In 12 cases of knee-joint excision, 1 was followed by re-excision, and 3 by secondary amputation, but with a recovery so rapid as seemed to indicate that neither of the previous operations, excision or re-excision, was prejudicial to secondary amputation for the preservation of life.

Secondary Amputation.—The probability of amputation becoming necessary after knee-joint excision is a question that may be determined by reference to the collections of results which I have brought before you, and which show also the mortality thence ensuing, in addition to the proportion of deaths arising from the operation of excision. Of the 7 cases alluded to in Mr. Butcher's report as having been subjected to amputation after excision had apparently failed, 6 recovered rapidly, and only 1 died. In my own cases, of 11 knee-joint excisions, 3, including the 1 re-excision case, were submitted to amputation, and all made rapid recoveries. Compared with *primary* amputation of the thigh for disease of the knee-joint, these results as to mortality are most gratifying, and without at once sacrificing the limb which might yet be preserved by excision. Thus, in addition to the statistics already quoted, the mortality of primary amputation formerly at St. George's Hospital, as practised for "abscess" and "ulceration of the articular cartilages," was most melancholy. Of 11 such amputations of the thigh at that hospital, as reported in the *Medical Times and Gazette* (1856), 5, or nearly 50 per cent., of the patients died, while 1 of the remaining 6 was convalescent only on the sixty-second day.

In proceeding to bring before you the particulars of my own series of knee-joint cases, it seems desirable to take them separately from the records of previous experience, in order to represent this series from two points of view,—firstly, as supplying typical illustrations of the essential conditions of disease, local and constitutional, which are appropriate for excision, and the results, proximate and permanent, of operation in each case, together with any peculiarities; secondly, the cases are submitted to analysis with reference to these, and also any questions of secondary importance pertaining to excision of the knee-joint for disease.

Two of the cases were partly narrated in the Hospital Reports of THE LANCET of 1860; the remaining ten cases I have abstracted from clinical notes carefully taken by Mr. T. C. Murphy, senior house-surgeon at the Royal Free Hospital.

It would be impossible, and probably tedious, for me to narrate within the compass of this lecture the histories of all my cases. I must content myself with bringing before you the essential particulars of six examples; the first three as more especially illustrating the conditions of disease which I have found to be appropriate for excision of the knee-joint—in one case during the course of disease, in the latter two cases, as being failures of the natural cure, both in regard to the kind of anchylosis and by malposition of the limb. The remaining three of these six cases are interesting more particularly as exhibiting complications: in one case, pregnancy at the time of excision, but safe parturition at the full period, with a living, healthy child, and the mother's limb having undergone firm osseous union; in another case, accidental detachment of the tibial epiphysis in the operation; in another case, acute tetanus and death,—the only fatal case I have yet had after *any* joint-excision, twenty-eight in number.

Typical Cases of Knee-joint Excision.

CASE 1.—Elizabeth D——, aged thirty-three, admitted into the Royal Free Hospital on the 12th of September, 1859. *Chronic synovitis* of the right knee-joint, of traumatic origin; duration of disease, six years; treatment occasionally. Ulceration of the articular cartilages, and extensive caries of the ends of the femur and tibia. Constitutional condition, nervous exhaustion. *Excision. Recovery*, with firm osseous union and a thoroughly useful limb in two months. *Result* known to be permanent after ten years.

CASE 7.—Henry G——, aged twenty, admitted into the hospital Oct. 28th, 1869. *Chronic synovitis* of the left knee-joint, of traumatic origin; one year's duration; ten months' treatment. Partial ulceration of the articular cartilages of the femur and tibia, followed by partial *fibrous anchylosis* and retraction of the leg, with *partial dislocation* of the femur forwards. Health good. *Useless tenotomy* of the hamstring muscles. *Excision. Recovery*, with a thoroughly firm *osseous union* and useful limb in two months and a half. *Permanent* result, one year.

CASE 8.—Henry H——, aged seventeen, admitted into the hospital Nov. 27th, 1869. *Scrofulous caries* of right knee-joint, of traumatic origin; fourteen years' duration, with occasional treatment. Partial ulceration of the articular cartilages of the femur and tibia, followed by partial *fibrous anchylosis* and retraction of the leg, with *partial dislocation* of the femur forwards. Health good. *Useless tenotomy* of the hamstring muscles. *Excision. Recovery*, with *osseous union* and a useful limb in two months. This patient sat up out of bed daily at the end of five weeks. *Permanent* result. Nine months after operation (Dec. 1870) he could stand on the one leg unsupported, and hop on it; just before Christmas he walked from near Gray's-inn-road to Harrow and back—a distance of twenty-four miles—for a day's bird-snaring; and on boxing day he was sliding on the ice all day.

CASE 10.—Sarah S——, aged twenty. *Chronic synovitis* of the right knee-joint, of traumatic origin, by a fall off a form. *Duration* of disease, fourteen years. *Treatment* in two metropolitan hospitals at different periods up to fifteen years

of age. At both these institutions amputation of the thigh was declared imperative. *Extensive ulceration* of the articular cartilages of the femur and tibia; limited fibrous anchylosis, with retraction of the leg to an angle of sixty degrees; anchylosis of the patella to the condyles of the femur. Health reduced; *pregnancy* of one month. *Excision.* The night of operation, sickness from chloroform. For two days, *painful startings* and jumpings in the leg of spasmodic character, affecting the knee. Fourth day, an hysterical fit, and the startings were renewed. The usual apparatus—a long back splint, and an external interrupted splint with foot-piece—holds firmly, and no displacement of the ends of bone. Spasms subdued, and sleep induced by the hypodermic injection of morphia—one-sixth-grain doses occasionally. Two months and one week after operation, "quickening" was first felt. The incision was firmly healed by primary union, and firm anchylosis between the ends of bone progressing. *Puffy swelling* around knee; reduced by moderate and gradual compression with a many-tailed bandage. On removing the splints, a small *ulcer* on the *heel*, and another on the sharp edge of the *tibia*. Apparatus reapplied, leaving the heel more uncovered, and an opening opposite the tibial ulcer. Under zinc-wash dressings, both sores healed. General health very good; the patient fast regaining flesh and colour, with a bright eye and cheerful aspect—looking, indeed, the picture of health. *Recovery*, with firm fibrous anchylosis, in three months; limb put up in a starched bandage, and the patient allowed to get about on crutches. Shortly after, was discharged from the hospital. A tendency to bowing outwards of the knee was soon evinced; rectified by gradual manipulation, the imperfectly ossified callus admitting of such *readjustment*, and the starch bandage reapplied. *Parturition* at the full period; the mother and child both having done well. Firm osseous union.

Analysis of the Cases.

(1) *Conditions of disease.* — Caries in all cases, with destruction of the articular cartilages of both the femur and tibia. In Case 1 the femur was chiefly affected, in Case 6 the tibia, and in the other ten cases both bones were about equally affected. The patella was healthy in nearly all cases.

(2) *Commencement of the disease.*—Synovitis in six cases—1, 2, 7, 10, 11, 12; scrofulous caries in the other six cases. *Cause:* Traumatic in eleven cases; constitutional in Case 2.

(3) *Duration of disease and of treatment previous to operation.*—Case 1: disease 6 years; treatment occasionally. Case 2: disease 5 years; four months' treatment. Case 3: disease 5¼ years; 2 years' treatment. Case 4: disease 1 year; 9 months' treatment. Case 5: disease 12 years; occasional treatment. Case 6: disease 3½ years; occasional treatment. Case 7: disease 1 year; 10 months' treatment. Case 8: disease 14 years; treatment occasionally. Case 9: disease 7 years; and equally prolonged treatment. Case 10: disease 14 years; treatment at various metropolitan hospitals. Case 11: disease 13 years; treatment 1 year in a metropolitan hospital, then in a special hospital. Case 12: disease 10 months; treatment in two metropolitan hospitals, then in the Royal Free Hospital.

(4) The constitutional disorder had *not* advanced to hectic and emaciation in any of the twelve cases except in Case 3. In Case 1, nervous exhaustion; 2, health good; 4, health irregular, digestion impaired; 5, marked anæmia; 6, health good; 7, health good; 8, health good; 9, health delicate with constant cough; 10, health reduced; 11, health good; 12, health good.

Pregnancy, without miscarriage, during the whole period of record in Case 10.

(5) *Age and sex.*—Age: 33, 27, 18, 20, 18, 5, 20, 17, 10, 20, 16, and 9 years. Sex: six males and six females.

(6) *Operation.*—The *incision* was semilunar downwards from condyle to condyle in all the cases. The *portions of bone* excised were the articular ends of the femur and tibia in all the cases, with additional portions of cancellated bone in Cases 1 and 6. The patella was removed in all cases. The *synovial membrane* was also removed as much as possible in Cases 2 and 7 of chronic synovitis. *Hæmorrhage* was inconsiderable during the operation in all the cases, no ligatures were required, the articular vessels being secured by torsion and exposure. *Sutures*—metallic in Case 1, silk in the subsequent eight cases. *Dressings*—water dressing in Cases 1 and 3, weak carbolic lotion in the other ten cases. *Splints*—a McIntyre, or else a back splint with foot-piece in all the nine cases, with an outside interrupted splint in all cases except 1 and 3.

(7) *Primary union.*—Complete, except just at angles of the incision, in Cases 2, 6, 7, 8, 9, 10, 12, or in seven cases; partial in Cases 1, 3, 4, 5, 11, or in five cases.

Secondary hæmorrhage in Cases 3, 5, and 8; arrested by ice in the first case, by ligature in the latter two. Sloughing or ulceration from pressure in two cases, 5 and 10.

(8) *Intervals of removal of splints.*—Average period one month after operation, and at similar periods subsequently, making only three or four reapplications of the retentive apparatus in each case.

(9) *Results.*—Osseous or firm union, and a straight limb, in all the cases; except Case 3, where it was incomplete; Cases 4 and 5, which were subjected to amputation; and Case 11, the *only death*, and from acute tetanus in thirty-six hours, seventeen days after operation. Period of union, average three months. Subsequently limb slightly bowed in two cases—2 and 6; the latter a child aged five.

(10) *Re-excision* in Case 5—a scrofulous case.

(11) *Secondary amputation* in Cases 4 and 5—both scrofulous cases; also in the questionable Case 3—a scrofulous case.

(12) *Permanent result.*—Ultimate known period: (1) 11 years; (2) 1¼ year; (6) 1¼ year; (7) 1 year; (8) 1½ year; (9) 1¼ year; (10) 6 months; (12) 5 months.

Such, then, at present, is the recorded contribution of the Royal Free Hospital to excisional surgery of the knee-joint for disease.

All the specimens of bone are before you (they were beautifully mounted by Mr. Horniblow, of the Royal College of Surgeons); and some of the patients in the series of cases await your examination in the adjoining room.

ON PAIN, AND SOME OF THE REMEDIES FOR ITS RELIEF.

BY WILLIAM DALE, M.D. LOND.

(*Continued from p. 680.*)

THE next medicine demanding our attention is *digitalis*, which has been not inaptly designated "the opium of the heart," for it has undoubtedly a marvellous controlling and soothing influence over that organ. I believe it is rightly classed amongst sedatives; and the notion prevalent of late that it is "a tonic of the heart" is only true in the sense that, by removing irritability and irregular movements of the heart, it permits the circulation to be performed with more freedom, and so helps all the organs of the body to throw off the load which previously oppressed them; just as opium will strengthen trembling and unsteady limbs by tranquillising and sustaining the brain, and, through it, the whole of the nervous system. The effects of digitalis approximate those of tobacco; I cannot see on what grounds it can be accounted a tonic medicine. One wonders therefore at its employment in certain diseases of debility—as, for instance, delirium tremens,—and can only suppose that the reported recoveries are the result of a happy accident, and the vaunted efficacy of the remedy an instance of the continued dependence of the profession upon a fallacy which has governed men's opinions in all time: I mean the logical fallacy, *post hoc, ergo propter hoc.* In doses of from ten to thirty minims of the tincture, half an ounce to an ounce of the infusion, and one grain to two grains of the powder, it is one of our very best palliatives in irregularity of the heart's action resulting from endocarditis, pericarditis, valvular imperfection, &c. In the above doses it often also acts powerfully as a diuretic, and very rapidly removes the dropsical effusions which may occur under such circumstances. I do not believe that larger doses are necessary, but can understand larger doses being given in past times, in inflammatory complaints; and, in this sense, to administer half an ounce, or even an ounce, for a dose is no novelty; but to treat delirium tremens in this way is, in my humble judgment, contrary to all sound physiological and therapeutic principles; unless, indeed, it be administered in cases where excitement of the brain or

symptoms of inflammation are present, which would only be another proof that "there is no new thing under the sun." As regards the cumulative property of digitalis, it seems to have been greatly exaggerated. I have never seen any such effect, and have prescribed the drug largely in the doses above mentioned; indeed, I have seen half-drachm doses given three times a day during a year, for violent palpitation in hypertrophied heart, without any such result. Dr. Holland says: "Though employing the medicine somewhat largely in practice, I do not recollect a case in which I have seen any injurious consequences from this cause." Pereira, likewise, questions its cumulative property to any injurious extent. I conclude, then, that digitalis is a safe and beneficial medicine in the doses, and for the diseased conditions, above referred to, and its employment, generally speaking, is satisfactory.

I take *hemlock* next in order, inasmuch as Dr. Headland places it with sedatives, although I think it might with equal propriety be ranked with narcotics. Dr. Harley asserts that "its action is quite beyond our comprehension." He adds: "The drug seems to have the power of resolving nervous action into its chief constituents, and, leaving untouched the one portion (the sensory), suddenly paralyses the other (the motor). In selecting hemlock as a remedy in the treatment of nervous diseases, we must be guided by observing whether irritation, direct or reflex, of the motor centres is or is not present." If it be present, conium, according to Dr. Harley, is the appropriate remedy. The succus conii is the best pharmaceutical preparation of the drug. The extract which, until lately, was the one most extensively used is said to be almost inert—thirty, forty, or even sixty grains having been administered without producing any effect. Dr. Harley prescribes exceedingly large doses of the succus: for instance, one drachm for a child two years old, two to three drachms for a woman, and four to six drachms for a man; and he has known upwards of two ounces taken at once.* It has been used with benefit in cancer, both alone, and in combination with henbane, belladonna, &c.; and is said to possess some deobstruent and alterative properties, which render it more valuable than some other remedies of its class in this disease; but these properties are questionable. Theoretically, it should afford us some help in the treatment of spasmodic diseases; and has been employed in tetanus, but for the most part in vain. It is largely used in phthisis to allay the cough, but I have not been satisfied that it is of any value. The powdered leaves and the extract have also been used externally in cancerous tumours, and they will sometimes afford some relief to the pain.

I pass on to notice *hyoscyamus*, *belladonna*, and *stramonium*. I class these remedies together, since they are closely allied in their medicinal properties and uses. They are all beneficially employed to relieve pain and procure sleep—stramonium, however, principally as an antispasmodic. Henbane, until a very recent period, was our accredited substitute for opium in painful diseases—as cancer, neuralgia, tetanus, &c.—when the latter drug, from any cause, might be deemed inadmissible; but I think we have failed to obtain the full benefit of its operation by timidity in its use. To procure sleep, it requires to be given in doses of from one to two drachms. Belladonna, in doses of from ten to twenty minims of the tincture three or four times a day, is useful in spasmodic asthma. The extractum belladonnæ and emplastrum belladonnæ are beneficially employed externally in heart disease where there is irritability of the organ, and in neuralgia and cancer. Stramonium has a world-wide reputation in spasmodic asthma, and often acts like a charm. For this purpose the flowers and stems are smoked like tobacco; sometimes alone, and sometimes with sage-leaves or tobacco. Cigars and cigarettes are prepared from stramonium by chemists; these answer the same purpose, and may please women better than a pipe. The employment of henbane, belladonna, &c., in combination with each other and with opium will be referred to afterwards.

I come now to speak of our chief medicine for relieving pain and procuring sleep—the remedy which we all employ daily, which, indeed, is as our right hand in practice, and which probably, in its twofold action, despite all its drawbacks, is one that will never be superseded—I refer, as will have been anticipated, to *opium*. Although not professing that this medicine is so potent as the famed Lethean stream, which if once the unhappy, in Pluto's dark abode, can drink, they forget all their past miseries; yet suffering humanity owes much to its virtues, and the physician could ill spare it in his battle with disease and pain. It would be altogether beyond my purpose, and indeed might rightly be considered impertinent, were I to enter into any lengthened disquisition as to the merits of opium and its preparations for the relief of pain in general; and therefore, on this head, I content myself by remarking that opium is our ordinary and universal catholicon during the course, and especially towards the close, of the fatal maladies at which we have glanced—as cancer, phthisis, asthma, angina pectoris, &c.; and in those which are not necessarily fatal, as tetanus, neuralgia, obstruction of the bowels, and spasm in general, its effects are often wonderful, translating the poor patient from a state of the most intolerable torture to one of comparative ease and comfort—nay, entirely from Tartarus to Elysium. On the near approach of death, where much pain is endured, after having, as in duty bound, made the patient sensible of his condition, I see no reason why he may not be kept constantly under the influence of opium, or some other hypnotic, as a rule, so that, with the blessing of God, his misery and pain may be lessened or removed as he passes through the gloomy shades of death. Of course, subordinate means must frequently be employed as well: now stimulants, as ammonia, or wine or brandy; now external warmth, and sinapisms to various parts of the body; and now choosing an easy position for the patient,—one or all may afford him help in this supreme extremity.

In some constitutions, it must be observed, opium and its preparations are not tolerated, and generally, in their long-continued use, produce disorder of the digestive organs, headache, nausea, insomnia, and syncope. I have now therefore to speak of their use—first, in union with other narcotics; second, by hypodermic injection. In combination with hemlock it is said that the remedies intensify each other's action, so that the use of large doses of opium, by which its injurious effects are generally produced, may thus be avoided. Belladonna and henbane may be combined with opium, and morphia in the same way, and by this method, it is said, many of the objectionable properties of the latter are prevented. Belladonna, according to Dr. Harley,* has the power of neutralising the contractile effect of opium on the pupils. It increases and prolongs the hypnotic action of opium, and he maintains that the supposed antidotal or antagonistic action of opium and belladonna has not been proved. In Dr. Brinton's work on "Intestinal Obstruction" the combination of opium and belladonna is spoken of in the highest terms. In the form of obstruction which is caused by intussusception he gave two parts of opium and one of belladonna, and states that "nothing in the whole action of remedies can surpass the comparative painlessness into which I have seen an agonising intussusception converted during the many days that have intervened before its unavoidable termination in death." I very recently had under my care a case of jaundice, arising from obstruction of the common duct, probably from gall-stones, where the pain, which was considerable for several days, was best controlled by a combination of opium, belladonna, and hemlock, after opium alone had failed. The *hypodermic* injection of morphia has proved serviceable, either where opium or morphia has failed to give relief when given internally, or for the sake of its more speedy and efficacious action on the system, in smaller quantities. Then, also, belladonna, or, at least, atropia, is recommended as an adjunct for the prevention of the distressing and dangerous symptoms which sometimes follow the injection of acetate of morphia alone. My own employment of hypodermic injection has been confined to the treatment of neuralgia, but the satisfactory results I have obtained lead me to look upon it with much favour; and, moreover, I have not observed any troublesome or dangerous symptoms in connexion with its use.†

* In the *Practitioner* for Dec. 1870, Dr. Harley has an article on hemlock, in which he recommends an extract made from the *ripe fruit* as the best preparation—two to three grains being a dose.

* The old Vegetable Neuroties. By John Harley, M.D. Lond. 1869.

† This remedy, like every good thing, is being abused. It is stated that some women, after having been hypodermically treated under medical surveillance, are in the habit of injecting morphia under the skin daily, or more frequently, on their own responsibility, when suffering from slight neuralgic pains, mental depression, or severe ennui—just as the drunkard takes his dram. So easily are bad habits generated where the moral power is weak.

Chloroform is the next panacea for man's aches and pains to which I direct attention. "To charm an ache with air" is not a new discovery, strictly speaking, but only an old one utilised. Even as early as the twelfth century the following receipt is accredited to one Hugo da Lucca, an Italian physician:—"℞. Opii et succi mori immaturi, hyoscyami, succi conidij, succi foliorum madragoræ, succi edereæ aboreæ, succi mori sylvestris, semi-lactucæ, seminis lapathij, quod habet poma dura, et rotunda, et cicutæ unam unciam." These medicines are directed to be boiled with sponge, and evaporated to dryness; then a portion of the dried sponge, steeped in hot water for an hour, is directed to be applied to the nostrils until stupor or insensibility is brought on. As soon as this soporific effect was produced, and prolonged so long as was deemed desirable, another sponge, dipped in hot vinegar, was applied to the nostrils to arouse the patient when the object for which he had been narcotised had been achieved.

Ether and chloroform,* or rather their vapours, are the principal anæsthetics now in use in the practice of medicine; but the latter has almost superseded the former. And whatever opinions may be entertained as to the priority of the discovery of its value, there can be no doubt but we owe the extensive use of chloroform to the labours and example of the late Dr. Simpson, whose attention was turned to it in 1847. But probably the first suggestion of anæsthesia in surgical operations is due to Sir H. Davy, more than half a century ago. There is, then, more than poetry and satire in the expression "to charm an ache with air"; for, in the paroxysms of asthma, tetanus, &c., it will act literally "as a charm," and cause the wondering patient to give utterance to the most lively expressions of gratitude for the relief one has been able to afford him.

In asthma, then, in tetanus, in the passing of gall-stones and urinary calculi, and in intestinal obstructions, internally by inhalations, and in neuralgia by its external and internal use, chloroform offers an invaluable agent for relieving pain; and should the time ever arrive when all danger to life shall be eliminated from its use, or should the scientific inquiries of Dr. B. W. Richardson and other philosophers result in the discovery of an anæsthetic that shall be totally free from danger, they will give to the world the greatest boon it has ever received from science, and achieve and deserve an immortal name. And that this desirable object may speedily be accomplished I am not without good hope; for some recent experiments made by Dr. Richardson with methylic ether, and reported in THE LANCET, tend to show that we may yet discover anæsthetic agents which shall be free from all dangerous properties. *(To be concluded.)*

LIGATURE OF THE COMMON CAROTID ARTERY FOR ANEURISM; DEATH FROM CANCER OF THE RECTUM.

BY SAMPSON GAMGEE, F.R.S. EDIN.,
SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

THE subject of this report was sent to me by Mr. Sainthill Pearse, of Brierley Hill. I transcribe an abstract of the notes taken, on the patient's admission into the Queen's Hospital, by the Rev. T. Gregg, one of our students.

March 13th, 1871.—Uriah M——, aged fifty-five, a miner. Always enjoyed good health, with the exception of an attack of rheumatic fever seven years since. About three weeks ago, when at work in the pit, he felt a pain in the back of his neck and shoulders, without being able to account for it. The pain increasing, and a swelling being noticed in the left side of the neck, he consulted Mr. Sainthill Pearse, and left work on the 7th March. Appetite good, but feels pain in swallowing, which grows worse.

The tumour, visible over the left common carotid artery, extends from a little below the middle of the sterno-mastoid to the angle of the jaw, and from the left upper border of the thyroid cartilage to three inches backwards. Heart-sounds normal; pulse 76, equal on both sides.

On inspection, pulsation is distinctly visible. On palpation, a distinct thrill is felt in the tumour, especially over its posterior part nearest the carotid track. Expansion is easily felt by pressing the tumour laterally between the finger and thumb. On auscultation, two kinds of sound are clearly audible through the centre of the swelling: one

* Bichloride of methylene has lately been extolled as an anæsthetic; but that it is superior to chloroform is yet to be proved.

being produced by the rush of air through the larynx, the other a loud rushing murmur due to the passage of blood; the former bruit perfectly synchronous with respiration, the latter with the motion of the heart. On pressing the carotid artery below the tumour, the pulsation is considerably diminished. There is neither swelling nor pain in any other part of the body.

The diagnosis of the aneurism was at once clear beyond the possibility of error. Equally evident was it that only one thing offered a chance of saving the man's life, and that was ligature of the common carotid. But, as I observed more than once to the class at the bedside, the man's look was unsatisfactory—sallow and unhealthy. So much did I dislike his appearance, without being able to account for it, that I declined to operate one morning when the case was set down in the list of operations to be performed. The aneurism symptoms were not urgent at the time, and I waited the effect of complete rest and good care, with which the man did certainly improve a little in general condition; but the growth of the aneurism and the rapidly increasing difficulty in swallowing and breathing forbad longer delay.

Operation.—I tied the left common carotid on April 15th. I applied a waxed thread ligature on the vessel below the omo-hyoid. Only one little vessel was tied in the line of incision, which was closed with three silver sutures, and a light compress of dry lint held in position by a couple of strips of adhesive plaster.

After the operation the pulsation in the tumour ceased for some three or four hours, when it could be again felt very slightly. The tumour seemed scarcely more than half its previous size, and the patient expressed himself as comfortable and free from pain. He could hear much better, and was relieved from the incessant buzzing noise in the left ear and from the difficulty of swallowing and breathing.

April 16th.—The patient feels much better. No pain in wound or tumour; pulsation in it is stronger, and thrill plainly felt. No headache. Pupils act equally.

19th.—Pulsation and thrill diminished; tongue furred; pulse 95. Patient feels no pain anywhere, but is unable to micturate. Catheter passed morning and evening, and about four ounces of highly coloured urine drawn off each time.

20th.—10 A.M.: Pulsation still distinct; thrill barely perceptible, and that only in outer part of tumour, which is steadily diminishing in size; no headache; pupils act equally. Almost the whole of the wound has healed by the first intention; only very slight sanguineo-purulent discharge issues in the immediate neighbourhood of the ligature. Dry lint dressing renewed. The catheter again used for the relief of retention.—7 P.M.: Is quite comfortable in head and neck, but complains of sharp pain in the abdomen, especially on the left side; pain recurs in paroxysms. Bowels constipated. To have a warm-water enema, and two tablespoonfuls of castor oil by the mouth, which in the course of an hour produced a copious motion. Linseed-meal poultices to be applied to the abdomen, and a third of a grain of morphia to be administered by subcutaneous injection.

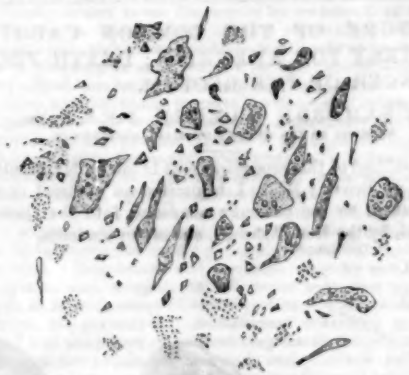
21st.—Abdominal pain very severe; knees drawn up in bed; the abdomen distended and tympanitic; pulse 130; extremities cold and clammy; face pinched, livid, and covered with perspiration. Is able to micturate, but with some difficulty. Symptoms of exhaustion increased, and death occurred at 7.35 P.M.

The register of temperatures throughout the case was taken by the resident surgical assistant, Mr. Wright Wilson, of whose notes I make an abstract:—

		Right Audit. Meatus.	Left Meatus.
April 15:	12.20 noon (1 hr. aft. op.)	96·4° ...	95·4°
,,	1.20 P.M.	96·4° ...	96·2°
,,	3.50 P.M.	97·4° ...	96·4°
,,	6.30 P.M.	100° ...	98·8°
,,	8.30 P.M.	100·4° ...	98·3°
April 16:	8.30 P.M.	98·2° ...	98·4°
April 17:	8.30 P.M.	94·6° ...	94·5°
April 18:	... ...	92·5° ...	93°

At this date the temperature in the axilla had fallen to 98·3° from 101·8°, at which it stood the morning after the operation. At 8 P.M., April 19th, the thermometer marked 98·8°, but it rose to 101·2° twenty-four hours afterwards, concurrently with complaint of sharp abdominal pain.

Autopsy, April 23rd, 10 A.M.—Very marked green discoloration on the front of the abdomen, especially on the right side, and on the corresponding half of the scrotum, the left half of which is of natural pink colour, the demarcation of the difference at the raphé being very distinct. Crackling perceptible on pressure over the green discoloration; section through linea alba shows tissues discoloured and infiltrated with fetid sanies and gas. Intestines generally glued together by recent lymph, and peritoneum, parietal and visceral, deeply injected. The subperitoneal tissue in the lumbar and pelvic regions greatly distended with gas; the true pelvis filled with semi-purulent feculent matter. On carefully removing the bladder and rectum, the former is found to be healthy, but the lining membrane of the gut posteriorly, an inch and a half from the anus, presents a circular patch of ulceration nearly three-quarters of an inch in diameter; the ulcer extends through the coats of the bowel, communicating with the cavity of the pelvis, and is situated immediately over a solid mass, two inches in length by one inch in depth; this mass has been deposited in the areolar tissue beneath and behind the rectum; on cutting through it in the middle line it presents a fibro-cartilaginous appearance, of a bluish-white colour; it is very firm under the knife, and, on pressure, gives out a little opalescent juice. Our resident surgeon, Mr. Gilbert Smith, to whom I am much indebted for assistance throughout the case, has made a drawing of the microscopic appearances. Cells of



all shapes were visible in the field, round, square, caudate, and fusiform, many with large and compound nuclei; between the cells granular matter and free nuclei abounded. The cancerous nature of the deposit was beyond question. Patches of atheroma were visible in the aorta. No disease in other parts and organs.

Examination of the aneurism.—The wound firmly healed with the exception of one-eighth of an inch, where the ligature emerges. The thread is firmly embedded in the coats of the artery, surrounded by plastic matter, at a point exactly one inch below the aneurism and three inches from the bifurcation of the common carotid. The dimensions of the aneurism are—laterally, two and a half inches; vertically, two inches. It presses against and is adherent to the larynx and pharynx, the former of which it overlaps a little on the left side. On opening the right external carotid from above, its cavity is quite free from clot, the lining membrane pink and smooth. The corresponding internal carotid at its margin is closed by a firmly adherent clot, which fills the cavity of the sac and extends down into the common carotid; in the sac the clot is reddish and rather soft, while in the common carotid it is white and much more solid and firmly adherent.

The coincidence of the two independent and formidable diseases is remarkable. Of the carotid aneurism nothing more need be said except that there is every reason to believe the ligature would have separated in due course without accident. Had there been reason to suspect cancer of the rectum, the artery must still have been tied to prolong life, which was in immediate danger from rupture of the bloody sac; but the fact is, we had no reason to suspect the disease of the bowel, and the man had distinctly denied pain in any other region of the body.

Birmingham, April, 1871.

TYPHUS IN INDIA.

(A REPLY TO PROFESSOR ROLLESTON.)

By R. T. LYONS,

ASSISTANT-SURGEON, BENGAL MEDICAL SERVICE.

(*Concluded from page* 710.)

I NOW proceed to the consideration of the "eight cases" disputed by Dr. Rolleston. It was probably due to the decadence of the epidemic when Dr. Fairweather relieved me in the last week of April, 1869, and to the very heavy, anxious, and distracting duties that suddenly devolved upon him, that he was unable to select better illustrative samples of the fever, and to describe them with greater completeness and precision.

The first two cases, Dr. Rolleston says, "may, possibly, have been cases of typhoid or of remittent fever." Looked at with the light obtained from a consideration of the collective character of the epidemic, they must be regarded as typhus. Contagiousness, which Dr. Rolleston says is "hypothetical" and "unsubstantial" as a quality of remittent fever, and the typhus character of the epidemic, preclude the view that these two cases were other than typhus; their personal symptoms indicating nothing to the contrary, and everything in favour of this conclusion.

Of the third case, which proved fatal, in which the symptoms during life and the post-mortem appearances are conclusive of typhus, Dr. Rolleston remarks that, "as there was no intestinal or mesenteric mischief, it could not have been enteric." He throws a doubt, however, on the fact that it was typhus by observing, "The persistence of typhus spots is about the only post-mortem appearance pathognomonic of typhus; and this was absent in Case 3." I do not concur in the statement that the spots are pathognomonic. Says Murchison, p. 229, *op. cit.*, "When death occurs before the cessation of the primary fever, and not from any subsequent complication, many of the darker spots are found to persist in the dead body." On looking through the autopsies recorded by Murchison, I find that in some instances the eruption was seen, in others not seen, in the dead body. In Reynolds's "System of Medicine," vol. i., p. 540, Dr. Buchanan says, "The typhus maculæ, but not the subcutaneous mottling, often persist on the skin after death." Dr. Fairweather has written in the diary of the case that the "spots were gone" before death occurred, a note that escaped Dr. Rolleston's attention. Thus Case 3 was clearly typhus.

Case 4 is admitted by Dr. Rolleston to be "not enteric"; but he remarks "we are told that it began as intermittent fever." Dr. Fairweather carefully abstains from telling us this himself; what he does tell is, "the native doctor says" this. Dr. Fairweather apparently had overlooked this case prior to May 21st—i.e., for nine days after admission. Indian surgeons can form a correct estimate of the value of a native doctor's report on such a point as this, and would prefer to form their conclusion, as to whether the fever was continued from the onset or intermittent, by the light reflected on the early unwritten history of the case by the later history recorded by Dr. Fairweather himself after daily observation subsequent to May 21st. This case, also, is clearly typhus; and I note here that "the spots were visible on the body" after death. (See contrasts between the spots of typhus and typhoid, No. 11, in Murchison, p. 471, *op. cit.*)

The last four cases remain to be dealt with. Giving them the most careful consideration, it is not necessary to defend them as typhus against Dr. Rolleston's criticism, for I cannot avoid thinking that they were not brought forward by Dr. De Renzy as examples of that disease. They are not cases of idiopathic continued fever, but of other diseases attended with inflammatory fever, and in one of them it is explicitly remarked by Dr. Fairweather that there was no pyrexia at all. It is clear that Dr. Fairweather reported them as "looking like" or "seeming like" typhoid fever—i.e., as presenting some features resembling typhoid indications. He makes no allusion to them in the general observations which preface the eight cases; they have had no influence on his opinion apparently, as far as I can gather from the report, beyond, perhaps, having induced him to select the comprehensive nomenclature of "epidemic fever," which, besides being disapproved by the Royal College of Physicians, and significantly noted by Dr. Rolleston in his second paper, had better been avoided, because indefinite or neutral in meaning. It is more clear that Dr. De Renzy rejected them as being neither typhus nor typhoid; for it is impossible to reconcile them with typhus, as it is seen in Europe or Asia, and Dr. De Renzy does not admit any admixture of typhoid in the typhus epidemic in the gaol. These four cases were submitted to his judgment as likely cases of typhoid; Dr. De Renzy duly estimated them and published them as negative data. I attach importance to the publication of these four cases, for I suppose that they comprise all, or some, of the cases that simulated typhoid fever, at any rate all in which intestinal mischief was discovered.* In discussing these cases, I summarily dismiss Case 7, which Dr. Rolleston (and everybody) sees was a case of tuberculosis. He considers Cases 5 and 6 to be "certainly typhoid, the post-mortem examination proving the disease to have been this." I beg he will pardon me for differing. In the preliminary remarks on Case 5, Dr. Fairweather distinctly observes that "it is evident it was neither of these (i.e., neither intermittent nor continued fever), and his case is given merely for the post-mortem appearances." A case which is not continued fever, in which "three small corroding ulcers in ileum," with perforation of the bowel and peritonitis, were found after death, is not typhoid, more especially as Dr. Fairweather, with due care, certifies that there were "no other signs of disease either in solitary, Peyer's, or mesenteric glands." Dr. Rolleston erroneously judged that the alternative was between typhus, remittent or intermittent, on the one hand, and typhoid. The disease was enteritis, or inflammatory disease of the bowels, a description of which, as it occurred at the Dhurmsala Gaol, is *apropos* in the appendix No. i. to Dr. De Renzy's Report, to which I request Dr. Rolleston's attention. Judging from the internal evidence in the cases, Dr. Fairweather regarded Case 5 as a dysentery. In Case 7 (tuberculosis) he remarks: "Farther along the bowel appeared round dark spots like the healed-up ulcers noticed in the case which died of dysentery." Five cases died; in two of which, Cases 3 and 4, there was no intestinal damage; one, Case 7, was tuberculosis; the remaining two are Cases 5 and 6. In Case 5 are these sentences: "The membrane was very vascular around the ulcers. There were also one or perhaps two ulcers apparently of same nature in a state of healing." This was manifestly the case referred to. The declared triune case of dysentery, No. 8, did not terminate fatally.

Case 6 is of the same character as the preceding, also enteritis of a more severe degree. In neither were spots seen. It should be observed that Dr. Fairweather states that Case 6 was "a prisoner of the Sohan Gaol"; that he was admitted into hospital at the Sohan on May 5th "with fever complicated with diarrhœa"; on the expiration of his term of imprisonment, he was discharged from the Sohan Gaol on May 20th. Being very ill, "delirious and suffering from diarrhœa," he was, out of charity, taken into the Rawul Pindee Gaol Hospital, where he died on May 24th! After death, Dr. Fairweather thus graphically describes the condition of his interior: "Intestines: *about three yards and a half* of lower part of ileum one mass of ulceration; enlargement and thickening of Peyer's patches and solitary glands. Near and on the ileo-colic valve large sloughy ragged patches. Transverse and descending colon, down to the rectum, thickly studded with rough, warty, irregular ulceration." A man with such extensive disease may doubtless be correctly described to have been in a typhoid state during life, a state which is common to many diseases, and he may even present the identical enteric symptoms of typhoid. Such extensive abdominal lesions are not characteristic of typhoid fever; they are over and above what happens in that disease. The value of these extensive lesions as a proof of enteric fever is compromised by their exuberant magnitude—a kind of evidential *embarras de richesse* which, in the criminal courts of this country, is, I understand, a proper reason for dismissing a case, or for ex-

* In my post-mortems, generalised in the 7th paragraph of my official report, no ulceration of the small intestines was seen in fatal cases of idiopathic continued fever, carefully discriminated from the rest of the nosology.

ercising a cautious discretion in deciding.* The disease originated and progressed to within four days of death at the Sohan Gaol, *where there was not an epidemic of continued fever*, but terminated at the Rawul Pindee Gaol, where there happened to be such an epidemic. I cannot ascertain how Dr. Fairweather diagnosed this case during life; but I should say that in ordinary circumstances nobody would think of diagnosing it as enteric fever. English physicians rarely or never see the terrific devastation of the intestinal tissues produced by ordinary diseases, such as are commonly called diarrhœa and dysentery, in the debilitated, broken-down, or, perhaps, starved persons who are sometimes met with in Indian charitable dispensaries and gaols, in regimental hospitals and European general hospitals, and sometimes on the roadside, in this country.

Of the final Case 8, which Dr. Rolleston claims as typhoid in part, we are told that "it looked like a complication of a dysentery, typhus, and typhoid." Such doubtless were the similitudes, but the existence of the three concrete realities in the same individual is problematical. The fever and "the peculiar look of the eyes" constitute, I presume, the typhus factor; the stools, such as "a mere spoonful of slime tinged with blood," were the dysenteric factor; and the spots, "like the well-defined spots of typhoid fever," the enteric factor. The case was admitted on the 22nd of May, when the epidemic was on its last legs; the mean temperatures of May and June being 89·45° and 92·35° respectively. "One or two doubtful spots" were marked on that date; others, "distinct," on the 3rd of June. On the 5th "spots more numerous." On the 7th June "pulse 96, soft; skin cool." The fever now ceased to continue, and did not return; the spots, however, showed no disposition to retire, as "some new ones were seen on the forehead." On the 9th "one or two new spots." On the 18th "fifteen or sixteen new spots." On the 30th of June "four or five new spots on the forehead." This case, to free it from scientific or logical doubt, needed a remark certifying that the premises were free from stinging insects. Louis once mistook ordinary pimples for typhoid spots. (See Murchison, *op. cit.*, p. 472.) This case was most probably only a dysentery in a broken-down subject.

I had written thus far, and had closed my reply to Dr. Rolleston, when the conclusion of his paper in THE LANCET of January 14th reached me. I have to observe, in connexion with Dr. Rolleston's continued remarks, that the epidemic of fever in the Rawul Pindee Gaol, in the first half of the year 1869, should be regarded as distinct from the general epidemic in the district in the latter half of that year. With respect to the nature of the latter epidemic I am not immediately concerned; and I submit that it has no necessary bearing on the nature of the epidemic which preceded it, and, as far as my positive knowledge goes (as I was not able to extend my inquiries to villages), was limited to the *prisoners of the Rawul Pindee Gaol*, the constabulary, burkundazes, or native warders, the officials of the gaol, including the medical attendants, two of my domestics, and to others who had direct or mediate communication with the prisoners. Of enteric fever amongst natives my knowledge is of a negative character; but I have met with it occasionally amongst Europeans. My experience of that disease appears to correspond with a deduction that might fairly be made from the published accounts—namely, that it is an affection to which Europeans in this country are more liable than the natives.

I have already gone beyond the limits of space that I had prescribed for myself, but not, I trust, beyond what the necessities of the subject needed. I trust that these explanations will help to remove the doubt with which this subject had been heretofore regarded in England. The difficulty felt by writers in this country, who habitually write for Indian readers, is to know what additional explanations are required for English readers. I convinced myself thoroughly of the character of the epidemics in the Rawul Pindee Gaol in 1867 and 1869, before I undertook the responsibility, in the latter year, of officially representing my personal views. The data contained in Dr. Fairweather's description of four typhus cases, in my official report of the typhus character of five hundred cases and more, supplemented by the explanations as to climate and vegetation made in the present paper, form a body of evidence ample, I trust, to carry conviction home to other minds. The subject of typhus in India is one of great pathological interest, and it will rise in the future to the elevation, and be so generally recognised, of a subject of economic or social importance in this country.

The Presidency General Hospital, Calcutta,
February, 1871.

* Suppose a punctured wound, large and deep enough to admit a cavalry sabre, be brought forward as proof of a prog with a penknife, or the complete squashing of a man's head be attributed to a blow with a fashionable walking-cane, the very excess of the alleged proof will condemn its admissibility, and will guide the search after other and more fitting causes of the injuries.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

DEATH FROM SUPPRESSION OF URINE.

(Under the care of Mr. HUTCHINSON.)

A WOMAN sixty years of age was recently admitted for suppression of urine. She alleged that about a week before the suppression commenced she had had a fall, after which a little blood passed with her urine; but, excepting this, nothing very particular had occurred until, five days before her application, she ceased to pass urine. She asserted that during these five days she had literally passed none. There was no accumulation in her bladder, and, a catheter having been introduced, only a drachm or two of bloody fluid escaped. She looked pale and ill, and stated that she had been ailing ever since the preceding January. She had had much vomiting ever since the stoppage of urine. Her pulse was 66; her temperature 98·4°.

An examination per vaginam disclosed the existence of extensive carcinomatous ulceration of the anterior wall of the vagina and neck of the uterus; the parts were closely united to the bladder. This discovery led to the suggestion that the ureters were possibly occluded in their passage through the walls of the bladder, and that the fall had probably had no real connexion with her symptoms; and it became interesting to watch the progress of the case as an instance of uræmic poisoning from mechanical suppression.

The patient remained in the hospital six days before death occurred, and during this time the most prominent symptom was constant and distressing vomiting. Her pulse had ranged from 66 to 112, seldom being more than 80; her temperature gradually rose to 100°, and she occasionally complained of feeling light-headed. The matters vomited were found by Mr. Stephen M'Kenzie to contain urea. To the last no urine whatever was passed, but whenever the catheter was introduced a drachm or two of blood and mucus were discharged. On the day of her death the following note was made: "She has had an attack of convulsions. Her tongue is dry. During the last twenty-four hours the vomiting has not been so troublesome. She is now conscious, and complains much of thirst and of pain in the back and abdomen. The abdomen is tympanitic in the centre and dull at each side; it is fuller than it was a few days ago. On passing a catheter, we obtain, as before, only a little dark blood. Pulse 112; temperature 100°."

The autopsy showed the fundus of the bladder and the adjacent part of the vagina to be involved in cancerous induration; both ureters passed through it, and were obstructed. Above, the ureters were enormously dilated, being as large as small intestines. The pelves of the kidneys were dilated, and contained a little grumous fluid. The right ureter was double, as was also the gall-bladder, which had two sacs communicating with one duct. The kidneys were large, flabby, congested, and soft.

In reference to this case, Mr. Hutchinson remarked that it was not common to have opportunities for watching the progress of cases in which sudden and complete suppression

of urine had set in. Cases of gradually increasing mechanical difficulty in the removal of urine were, he said, not very rare in surgical practice; and in some of these a certain degree of damage to the kidneys not unfrequently resulted. But by surgical means, in almost all these, the obstacle was overcome, and the risk of suppression from occlusion of the excretory channels was staved off. It was well known that suppression is one of the results of such occlusion, and that, as in the present instance, it sometimes sets in very suddenly. Usually in such cases the obstacle is, he said, in the urethra or the neck of the bladder; for, when one ureter is obstructed, it is very rare that its fellow is also involved, so that ultimately one kidney undertakes double duty. He referred to one case in which the patient, who had passed calculi, and suffered from symptoms of stone in the kidney, was at length seized with complete suppression. He came to the conclusion that there existed old-standing destruction of one kidney, and recent obstruction of the other ureter. After four days of suppression, with remarkably mild constitutional symptoms, urine again appeared, and recovery followed. In another case, a commercial traveller, who had lived freely, but who still appeared to be in good health, was suddenly seized with complete suppression. He suffered little or nothing for the first few days beyond being occasionally sick. At length he began to sweat profusely, and his mind wandered. His perspiration and breath smelt of urine. He died on the seventh day of the suppression. No post-mortem was obtained. Mr. Hutchinson added that he had seen several instances in which recovery occurred after two or three days of absolute suppression of urine, without any cause being assignable either for the symptom or its relief.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. BRYANT.

FOR the following notes we are indebted to Mr. R. S. Mutch.

A Case of Imperforate Anus, with fæcal fistula opening into the vagina.—The subject of this malformation was four months old, and passed small and scanty stools through the vagina; the site of the anus was marked by a slight elevation. All the other members of the family were perfectly developed. A curved instrument, having a button-shaped extremity, was passed through the fistula, and made to pass down the bowel so as to push forward the small elevation just mentioned. Mr. Bryant then carefully dissected down to the bowel, and, having incised it, stitched its cut edges to the margins of the perineal wound. On the evening of the day following the operation a motion was passed through the anal opening. On the fifth day a dose of castor oil was required. The child continued to take the breast well, but was restless at night. She was discharged on the tenth day. Three months later the following note was taken:—"The artificial anus keeps open, being daily dilated by the insertion of a sea-tangle tent. At times, some fæces pass per vaginam, but the bulk comes through the artificial anus."

Dislocation backwards of the Radius and Ulna of two months' standing; complete reduction of the ulna; partial reduction of the radius; increase of the range of movement.—Two months before admission the patient, who was nineteen years of age, was thrown from a carriage, and, alighting on her left hand, dislocated the corresponding forearm. In the course of the same day the limb was "set" by a medical man. At the end of a week, during which there was a great deal of pain, the limb was bent and pulled. This proceeding was repeated every week for six weeks. The patient then placed herself in the hands of two other medical men, who, under chloroform, applied pulleys for an hour or thereabouts. No relief ensuing, she applied for relief at the hospital.

The forearm was found to be fixed at an obtuse angle to the upper arm, and was rather more than semi-prone; the olecranon was displaced backwards and upwards; flexion, extension, and rotation could be performed within exceedingly narrow limits; the condyles of the humerus preserved their normal relations, but some thickening could be felt behind the external condyle, and internal to the head of the radius. There was no swelling of the soft parts. Placing his knee against the humerus, Mr. Bryant exerted forcible traction on the forearm; the rupture of adhesions was distinctly audible, but the dislocation could be reduced only to the extent above indicated. The forearm, semi-prone, was fixed at a right angle to the arm by means of an internal angular splint provided with a screw-joint. On the following day the patient vomited, and the joint was swollen, hot, and painful.

On the third day there was scarcely any pain, and the patient walked about the ward. On the sixth day she left the hospital. She was frequently seen after her discharge, and rather more than a month after the performance of Mr. Bryant's operation she had regained complete power of pronation and supination, and a considerable range of flexion and extension.

Compound Fracture of the Arm; amputation; torsion of the arteries; primary union; recovery.—John S——, aged ten, was admitted for a complete smash of the left arm, produced by the passage of a waggon over the limb. The arm was amputated about the middle a few hours later, by making lateral skin flaps and a circular section of the muscles. The arteries were twisted in the usual way.

On the third day the dressings were removed, and the wound was found to be all but healed throughout. No constitutional disturbance followed the operation. On the fourth day the boy was up. On the ninth day he fell and injured the stump, but not materially. He left the hospital with a good stump, and perfectly well, in the third week.

ST. BARTHOLOMEW'S HOSPITAL.

AN INSTRUMENT TO FACILITATE SKIN-GRAFTING.

THE accompanying woodcut represents an instrument designed to facilitate the process of skin-grafting, which was brought into use at St. Bartholomew's Hospital in the early part of last March. It consists of a pair of curved scissors, which are provided on their concave surface with

bent forceps. These are controlled by a lever which descends with the separation of the blades, and rises when they are brought together. The movements of these several

parts are so concerted that the forceps meet between, and just below, the blades, immediately before the closure of the latter, and then rise between them to such a height that whatever they have seized will be divided from its attachment when the blades actually meet. Thus the whole process of seizing a small portion of skin, separating, and raising it, can be almost simultaneously performed with one hand. The size of the severed piece of skin is proportionate to the force with which the forceps are pressed against the surface from which it is to be removed.

This contrivance was suggested to Mr. Ferguson, of Giltspur-street, early in the present year, by Mr. Crips, a student of St. Bartholomew's. It has since been in constant use at the hospital, and is very favourably spoken of. Mr. Pollock also has, we believe, expressed his approval of it.

PROVINCIAL HOSPITAL REPORTS.

LEEDS INFIRMARY.

AMAUROSIS; BREAST-PAIN.

(Under the care of Dr. CLIFFORD ALLBUTT.)

A. B——, a labourer, has been admitted three times during this spring into the Leeds Infirmary with symptoms of the granular kidney or interstitial nephritis. At present (May 12th) his urine is copious, clear, and moderately albuminous; his skin is sallow, harsh, and dry; and his hair, which was originally of a sandy colour, has changed of late into a peculiar patchy grizzle. The grizzled patches are chiefly on the frontal and temporal regions. His arteries are not evidently diseased, nor is his heart hypertrophied. He has had albuminuric retinitis, nevertheless, for which he has been an out-patient of the eye department. This was never severe, and has passed off, leaving his sight fair and his retina injured in certain districts only. At present, however, his sight is very defective, so that he is unable to distinguish the features of those about him. This dimness of vision varies a good deal: at one visit he may scarcely be able to distinguish objects at all, or to count fingers; while at the next he may want clear vision of details only. He has some symptoms of uræmia also, such as drowsiness and occasional vomiting. There is a very slight degree of anasarca upon the back of the feet. He, however, complains most of a severe pain which passes through from the epigastrium to the back, between the shoulders; and he expresses great gratitude for the chloral draughts which relieve this pain. It is not always present, but comes and goes; sometimes it sets in suddenly with an almost intolerable constricting pain; at other times it occurs less severely, but is more prolonged.

Dr. Allbutt drew attention to several points of interest presented by this case. In the first place, the patient had not the hypertrophied heart which so often accompanies the latter stages of chronic kidney disease of all kinds, and interstitial nephritis more especially. Secondly, he presented an example of the occurrence of retinitis independently of cardiac hypertrophy, an independence which he (Dr. Allbutt) had had many opportunities of observing, granular kidney being of common occurrence in West Yorkshire. These cases disproved Traube's hypothesis that the retinitis is due to tension of the arterial system in consequence of, or coincidently with, overaction of the heart. Thirdly, the patient presented a second amaurosis quite independent of retinitis, and which might be called "uræmic amaurosis." The disturbance of vision in that form was not accompanied by any evident changes within the eye, but was always accompanied by some other symptoms of uræmia, and probably depended upon intracranial disorder. Fourthly, the man suffered from a pain which he had called uræmic angina, and which he had noticed in many cases of far-gone interstitial nephritis. He had notes of eight of these cases in which that symptom had occurred. Those patients complained that a pain seized them in the epigastrium, and darted through to the back between the shoulders; the pain was not angina pectoris; there were no sweats, syncope, or sense of dissolution associated with it, nor was it readily arrested by nitrite of amyl; it was simply a severe neuralgia. The earnest desire for relief showed that the pain was by no means inconsiderable; it was so severe in the case of a publican who had died under his care and that of two other medical men a few years ago, that it was finally agreed to inject an eighth of a grain of morphia. With good reason this was done very reluctantly, for the pain was relieved at the expense of a serious increase in the uræmia; in fact, the morphia almost killed the patient.

On two other occasions Dr. Allbutt's aid has been requested in cases of interstitial nephritis, on account of this breast-pain, and on that account alone, so that it was to be regarded, not only as a severe, but as a frequent symptom of the state in question. It was not noticed, however, in any works on the subject, nor was the cause of it easy to determine.

FOREIGN HOSPITAL REPORTS.

VIENNA HOSPITAL.

NOTES OF CLINICAL REMARKS BY PROFESSOR SKODA.

Typhoid Fever.—Professor Skoda remarked that papules, wheals (*quaddeln*), erythematous patches (*flecke*), and vesicles may all occur on the skin in typhoid. Urticaria often occurs in those who have had it before, especially if the skin be not kept clean. Those who are liable to swelled skin follicles in health will also get them if attacked by exanthemata, especially typhus (typhoid). In abdominal typhus the whole skin is sometimes flecked over with red patches.

The diagnosis of exanthematic typhus is only possible by knowing that we have to do with an epidemic of it. In Vienna it occurs so seldom that you must give a diagnosis of it with extreme caution. An epidemic occurred when Vienna was occupied by the French in 1809, and at that time the General Hospital was overcrowded with patients. An epidemic also occurred thirty years ago in the Theresianum Hospital, and all the students caught it.

The diagnosis of the abdominal from the exanthematic form of typhus is made, in a considerable degree, from the character of eruption on the skin. The amount of eruption in exanthematic typhus bears no fixed ratio to its power of infection; and the prognosis varies in different epidemics of this disease, as in those of small-pox, scarlet fever, &c.

In typhoid, cases of considerable ulceration of the small intestine may occur without any diarrhœa. Meteorismus also, though a very common symptom, is often absent, and is by no means peculiar to typhoid, if present. It may occur in typhus (exanthematicus) where alterations in the intestine do not occur; and here it must be due to a paralysis of the nerves supplying the muscular coat of the bowel through the influence of the fever on the spinal cord and general nervous system. Meteorismus is also common in peritonitis, while it occurs more seldom in intestinal catarrh, which must be very severe to produce it. It seems to be proportioned to the rapidity of the fever, and it may become very dangerous through the impediment which the distended bowel offers to the descent of the diaphragm, and therefore to respiration, so that hypostatic congestion of the lungs and catarrhal swelling of the bronchi result.

Diagnosis of recent Endocarditis.—With regard to a case of second attack of acute rheumatism, with a systolic murmur at the apex of the heart, Dr. Skoda said that, though the mitral insufficience here present was a proof that endocarditis *had* existed, the question one should always consider, if a patient come under observation with an intracardial murmur and rheumatism side by side, is: "Is this murmur due to old or to recent endocarditis?" Where the history fails to help us, we may be aided by remembering the following points:—In a recent endocarditis the spleen will probably be plugged (infarcted) with fibrinous deposit from the valves, and therefore *enlarged*. Similar infarction of the kidneys will give rise to the presence of blood in the urine. Pains in the cardiac region, and irregularity and palpitation of the heart, if they exist, point to a recent endocarditis; but they depend more on the fever present than on the endocarditis *per se*. The most certain proof of fresh endocarditis is a gradual increase of dilatation of the heart during the course of the rheumatic attack, especially if followed by palpitations and dyspnœa.

Embolism and Encephalitis.—With regard to a case of

right hemiplegia in a woman aged twenty-five, with insufficience of the mitral valve, Professor Skoda observed that, though the paralysis was here probably due to embolism, we must also think of encephalitis circumscripta as its possible cause. Encephalitis is sometimes so ill-marked that the patient, at the beginning, has merely a headache, and nothing besides. Then follows paralysis or sopor. The symptoms may be exactly the same as those of embolism of a cerebral artery. In this instance the patient suddenly fell down, without having had any illness beforehand. Dr. Skoda said he could make no certain diagnosis between embolism and encephalitis circumscripta during life. Granting that the case before him was due to embolism, it was possible for it to have occurred during merely a slight cold, or slight rheumatic attack. The pulse was here quick, and the temperature raised—i.e., there was fever present. Such fever can follow an embolism through inflammation excited in parts of the brain bordering on the infarction, but it is not directly dependent on the embolism.

The prognosis of embolism is better than that of encephalitis, for, after the former, the paralysis of the extremities may disappear from the plugged artery becoming again free. Embolisms of the lower arteries of the body—e.g., the crural on the right side—not seldom occur in patients with heart disease, and are followed by pulselessness of the vessels of the leg lower down; and, after this state has lasted for months, the pulse returns, showing that the artery is pervious again. The same thing can happen in the brain. In encephalitis no such recovery can take place. The part of the brain injured will always preserve its damaged condition, and the paralysis undergoes no diminution.

The treatment for both affections is but ill-determined. Digitalis may be given if the pulse is excessively rapid, but neither the embolism nor encephalitis would be thereby diminished. Cold applications to the head may be used if the temperature is high, else they are better avoided. The so-called revulsive agents, such as mustard baths and preparations of cantharides, are useless, and should not therefore be employed. The most important indications are to remove fæces from the rectum and to look after the bladder. The nutrition of the patient should be carefully attended to, and he should be told that his illness will probably last a long time.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 23RD, 1871.

MR. CURLING, F.R.S., PRESIDENT, IN THE CHAIR.

ON PARTIAL ACUTE IDIOPATHIC CEREBRITIS.

BY CHARLES ELAM, M.D.

THIS paper was intended as a continuation of one read during the last session of the Society on General Acute Cerebritis, showing some remarkable points of contrast between the two affections, which are so closely allied pathologically, and yet differ so completely in a clinical aspect, the most noteworthy feature of difference being the far greater severity of the symptoms in the local and limited form of the disease than those of the universal inflammation.

The author referred briefly to the description given of general cerebritis, and showed that, although the anatomical characters of the cases were in some respects different, yet they were all true cases of inflammation of brain-substance, uncomplicated with meningitis, the differences arising from the varying periods at which death occurred.

The annexed table indicates the chief differences between the general and the partial form of cerebritis, clinically considered. Amongst special symptoms, it was noticed that in general cerebritis the pulse was unaffected at the commencement; whilst in partial cerebritis it began with extreme depression, followed by great rapidity and subsequent irregularity. The tongue is much less affected in the general than in the partial form, and the organic complications are much more aggravated and numerous in the latter.

The most striking feature in the history of partial cerebritis is the occurrence of remissions in the course of the disease, often so marked as to simulate restoration to health. This was illustrated by some cases both of constitutional origin and arising from external violence. In two of these, where the patients had been for some time apparently moribund, there was so entire a remission of all the symptoms that for some hours nothing could be detected indicative of any disease whatever. One was a case of fracture of the skull, where there was a fissure extending from the middle of the left parietal bone down to the foramen magnum. This kind of remission, combined with the previous history, was shown to be characteristic of this disease, and to distinguish it from all others.

The diagnosis of this disease is not difficult. It differs from the various forms of "softening" clinically, as thus: 1. From the apoplectic form, in the absence of aphasia and paralysis, as well as other general features of progress. 2. From the convulsive form, in the absence of epileptiform attacks at the beginning, and the greater constancy and duration of the convulsions when established later on in the affection. In this disease, also, convulsion lasts to the end; whilst in softening death is generally "tranquil and peaceful." 3. From the delirious form, by the mode of invasion, which is never by delirium; and by the less marked character of this symptom throughout.

The pathological features also differ materially. From white softening, the colour alone is a sufficient distinction from the "red" and "yellow" forms. Besides many other important differences, the section is distinctive, being depressed in partial cerebritis; very often elevated, as though swollen, in softening.

The general aspect of the disease makes it most liable to be confounded with typhus. From this it is distinguished by the mode of invasion, and the marked preponderance of active brain symptoms.

The etiology of this disease is closely allied to constitutional cachexiæ, chiefly of a tubercular nature, and to hereditary predisposition.

The prognosis is very unfavourable; but there are considerations, both of a clinical and pathological nature, that lead to the conclusion that it is not always fatal.

In treatment, although little can be done of a *curative* nature, there is a fact which is occasionally of the highest importance to remember. For business or family reasons it is often especially desirable to obtain a few hours of clear intelligence. This occurs in the remissions already referred to; and the practical point in question is this—that this remission may be often ensured in the early and middle stages of the disease by the exhibition of a smart purgative, as a drop of croton oil, with or without a few grains of calomel. It has little influence on the general progress or ultimate issue of the disease; but the effect for the time is frequently marked and unquestionable.

Tabular view of the contrasts between General and Partial Acute Idiopathic Cerebritis.

GENERAL CEREBRITIS.	PARTIAL CEREBRITIS.
1. Complications.	
Described as inflammation of the brain-substance alone, the meninges being unaffected.	Never confined to the brain-substance alone. Meningitis, local or general, always present.
2. Extent.	
Extending through the whole substance of the encephalon except the meninges.	Partial; generally a small patch, limited to a portion of one side; usually superficial.
3. Period of life.	
Occurs usually between the ages of eight and thirty, never after thirty-five.	Rarely, if ever, occurs before the age of forty.
4. Mode of invasion.	
By vomiting.	By fainting, or a very slight apoplectiform seizure.
5. Termination.	
Always in death.	Very fatal, but perhaps not so uniformly so as the "general" form.

6. *General symptoms: duration and progress.*	
Symptoms comparatively mild, and wanting in general significance. Progress uniform and uninterrupted from commencement to death, which occurs between the second and twelfth day.	Symptoms most varied and severe. Progress never uniform, but broken by remissions, sometimes so complete as to simulate perfect restoration to health. Duration from three to six weeks.
7. *Prodromata.*	
None.	Always present; — sometimes of a somatic, sometimes of a psychical order, or both.
8. *Paralysis.*	
Generally none.	Some marked weakness, but variable and dubious.
9. *Convulsions.*	
None, until very near the close.	Always present, at some, and generally at an early, period of the disease; persistent to the end.
10. *Coma.*	
Only occurring at the close of life.	Occurs early, sometimes as the earliest symptom; departs and recurs irregularly.
11. *Delirium.*	
Mild and inconstant.	More irritable and violent in character; often muttering; not constant.

After some remarks by Dr. BROADBENT,

Dr. SUTTON asked Dr. Elam if he had made post-mortem examinations in all his cases of supposed idiopathic cerebritis, and if he examined the internal ears of the patients mentioned in his paper. Dr. Sutton remarked that pathologists generally considered that cerebritis was dependent on some injury to the head, or to disease of the cranial bones, to disease of the ear, or to some pre-existing disease situated either in the brain or in other parts of the body, and that it was not an idiopathic affection.

Dr. ELAM replied that he claimed no consideration for these cases, except such as arose from the fact that they were drawn from the life, and from death. Cases of a similar nature, about twelve or upwards, had been noted, in all of which remarkable intermissions had been observed; but in none to quite the same extent. In relating the cases, the absolute phenomena had been stated, and afterwards contrasted with those that were found described in our systematic treatises on affections of the brain. Hence arose the diagnostic marks that had been quoted as distinguishing between the affection under consideration and the various forms of softening of the cerebral substance heretofore described. In reply to another question, Dr. Elam stated that he had not been in the habit of investigating the internal ear in these cases.

A CASE OF BONY ANCHYLOSIS OF THE KNEE-JOINT TREATED BY SUBCUTANEOUS SECTION OF THE BONE.

BY LOUIS STROMEYER LITTLE, F.R.C.S.,
LATE ASSISTANT-SURGEON TO THE LONDON HOSPITAL.

(Communicated by the PRESIDENT.)

The author in this paper gives an account of a case of bony anchylosis of the knee-joint in a child aged fourteen, in whom the limb was fixed at a right angle. The anchylosis was divided subcutaneously by means of a carpenter's chisel, and by an extending apparatus the limb was straightened so as to allow of locomotion three weeks after the operation. The author discusses the plan of dividing the long bones by means of a saw for the cure of deformity, and concludes that for bony anchylosis of the knee-joint subcutaneous osteotomy by means of a saw is impracticable. The case is believed to be the first instance where subcutaneous osteotomy has been performed in this country for the relief of bony anchylosis of a large joint.

Mr. CARR JACKSON expressed the opinion that excision of the knee-joint would be impracticable in a case of complete bony fusion.

The PRESIDENT.—That is to say, in a case where there was no joint to excise.

Mr. CARR JACKSON.—Precisely.

Mr. SAVORY said that the success of the very interesting operation which had been described was no doubt due to the fact that, after the limb had been straightened, the knee-joint again became firmly anchylosed. Anything like useful motion of the joint in such cases was out of the question, and, had the tibia remained movable on the femur, it would only have allowed the recurrence of distortion, and the limb would have become proportionately useless. That threefold deformity, the result of long-continued disease of the knee-joint—extreme flexion, partial dislocation backward, and rotation outward of the leg upon the thigh—was one of which the permanent remedy was almost beyond the reach of any form of apparatus, and in many of these cases excision had been resorted to as the sole available means, for by this operation the limb is not only straightened, but the tibia is rendered immovable by becoming one with the femur.

The PRESIDENT, having assisted at the operation performed by Mr. Little, was able to bear testimony to the fidelity of the description of it in the paper, and to its success in restoring a useful limb. Had Mr. William Adams been present, the President would have inquired whether he had heard of Mr. Little's operation on the knee before performing, a year afterwards, a similar operation on the hip-joint.

Mr. CARR JACKSON said he thought he might venture to say that Mr. Adams was acquainted with Mr. Little's operation.

The PRESIDENT thought then that the success of Mr. Little's case must have given Mr. Adams great encouragement and confidence in undertaking his operation. As Mr. Little was in a distant country, and as he (the President) had communicated the paper to the Society, he felt called on to support and vindicate Mr. Little's claim to originality in performing a subcutaneous operation on a completely anchylosed joint, for rectifying the position of the limb.

EPIDEMIOLOGICAL SOCIETY.

MAY 10TH, 1871.

DR. SEATON, PRESIDENT, IN THE CHAIR.

AT the meeting of this Society on the 10th inst., a paper was read by Inspector-General Lawson, "On Outbreaks of Cholera in Ships at Sea."

The author is of opinion that the concurrence of three classes of causes is necessary for the development of every epidemic: these are—first, general causes, which are experienced over large portions of the earth's surface at the same time, and have usually been alluded to as epidemic cause or influence; second, causes connected with locality; third, causes connected with persons, as distinguished from those depending on the locality in which they reside. If the latter classes be fully developed, intense disease may be excited under the influence of the general causes; while, if they be less developed, notwithstanding the operation of the general causes, sporadic cases or small groups only make their appearance, or the inhabitants of certain localities may escape altogether, while those of others in their vicinity, and often mixed up with them in the most striking manner, may display a large amount of sickness.

Mr. Lawson has investigated the nature of one of the general causes in connexion with fever and cholera, and, from its wave-like character and progressive motion, has denominated it a "pandemic wave." These waves follow each other every second year, and proceed from south to north according to a fixed law, so that their position can be indicated on the map for any given date.* Their influence is experienced in England the sixth year after it has been manifested at the Cape of Good Hope; and, as regards cholera, in a year with an odd number there will always be the crests of three waves between England and the Cape, and in a year with an even number, the crests of two only. Ships proceeding from England to the Cape must pass through these waves, and when circumstances are favourable for the manifestation of cholera in them, the disease should be intensified where their geographical position corresponded with that of the wave at the time.

The tracks of four ships proceeding from England or Ireland, and one from Gibraltar, to the south, were given, while cholera existed on board, and these, with the attacks

* See Map in Sanitary Report for the Army for 1866, p. 383; and Epidemiological Transactions, vol. iii., p. 216.

of the disease each day, were shown on charts, together with the estimated position of the waves at the time for each. Three of the former left this country when cholera was prevailing on shore, the *Apollo* in 1869, and the *Windsor Castle* and *Lord Warden* in 1866, and each had one or more cases soon after sailing. The first had two distinct outbreaks during the voyage, the other two had one each; but the *Windsor Castle* had, in addition, a single fatal case after she had got far to the south-east of the Cape. The fourth vessel, the *Jumna*, started from England in 1867, when there was no cholera in this country, neither was there any at St. Vincent, one of the Cape de Verde Islands, where she touched on her voyage; but four days after leaving that, one case of malignant cholera occurred, and numerous others of choleraic diarrhœa, and these continued to crop up for ten days. In all these instances the ship's position, when these outbreaks commenced, agreed very well with that assigned to the wave moving in the opposite direction. The ship from Gibraltar, the *Renown*, left after the epidemic of 1865 had declared itself there, and a case occurred on board the day before she sailed. An outbreak commenced when she was south of the Cape de Verdes, under the same wave she was in at Gibraltar, but it ceased after some days, and another commenced in 4½° S. soon after she reached the position of the following wave.

Similar results were obtained from examining the progress of cholera in ships in the Indian Ocean. The *Gertrude* sailed from Calcutta in 1859, and sixteen days after leaving the land had a case of cholera, and in the next four days four others. Another outbreak commenced four days after, when upwards of 700 miles from her last position, and two other cases occurred when she had got south of Mauritius, where cholera was frequent at the time. The steam ship *Oriental* left Bombay for Mauritius on June 29th, 1859, and put into Galle, in Ceylon, on July 5th; seven deaths from cholera had occurred up to this time, and four more up to July 11th, after which it ceased. The *Queen of the North* left Bombay on January 22nd, 1864, and had some cases of diarrhœa, bilious cholera, and four of malignant cholera up to February 5th. On February 8th, when in 5° 38′ S., an outbreak commenced which, up to the 15th, produced thirty seven cases of malignant cholera, of which twenty-four proved fatal. No case presented itself after the 15th. Another, the *Salamanca*, left Kurrachee on May 7th, 1865. She had one case of cholera on the 9th, one on the 10th, and a very decided outbreak of choleraic diarrhœa on the 11th, which continued for some days, with three cases of cholera on the 11th, one on the 12th, and two on the 14th, after which it ceased. On the 11th this vessel was in 14° 14′ N. Another ship, the *Durham*, left Calcutta in 1866; ten days after leaving the land, when in 10° N., a case of cholera occurred. Nine days afterwards, when she had just crossed the line, an outbreak commenced, which in a few days produced nine cases, of which six died. In all these instances the positions of the ships corresponded satisfactorily with those of the waves, advancing in the opposite direction, at the time the various outbreaks manifested themselves.

The wave experienced by the *Queen of the North* in 5° 38′ S., in 1864, was the same as that met by the *Salamanca* in 14° N. in 1865, and by the *Renown* in 4½° S. in the Atlantic in the same year; this again was encountered by the *Windsor Castle* and *Lord Warden* north of the Cape de Verdes in 1866, and in 1867 the same wave overspread the North of Africa and South of Europe, causing a severe epidemic; and the increase of common cholera in this country, in 1868, was connected with its onward progress.

After some remarks by Dr. Milroy, the discussion of Mr. Lawson's paper was adjourned to the next meeting of the Society, June 14th.

ANIMAL VACCINATION IN MILAN.—The Committee entrusted with this mode of vaccination have published their second annual report, which is remarkable for lucidity and straightforward statements. The figures show very plainly that animal vaccination, though in no way superior to the humanised process, is not inferior to it. In the summary appended to the report, the committee freely acknowledge this; but they point out that animal vaccination has the great advantage of avoiding any conveyance of morbid tendencies by the vaccinifer.

THE ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1869.

II.

FROM the Statistical Report we learn that, among the fevers, examples of cerebro-spinal fever occurred at Portsmouth, Aldershot, Dover, and Kilkenny—one at each station respectively, that at the last-named station only having recovered. The Household Cavalry has always shown a marked exemption from enthetic diseases, as compared with other arms; and this is the case on the present occasion. With this exception, the Military Train had the lowest ratio of admissions for syphilis during the year 1869. The proportion of admissions and deaths for tubercular diseases does not differ materially from the results shown in the preceding year. The ratio of deaths in the Foot Guards, which was unusually low in 1868, has risen to its usual amount; and, in addition to the deaths, there has been a heavy loss by invaliding, which, from the nature of the diseases, it may fairly be presumed would have caused a considerable increase of the mortality had the men not been discharged. The loss per 1000 from these disorders in the Household Cavalry was, by death and invaliding, 16·44; in the Foot Guards, 12·94; while in the cavalry of the Line it was only 6·18. Diseases of the circulatory system were the cause of nearly one-fifth of the mortality, the total number of deaths amounting to 131; of which 60 were from disease of the heart (chiefly valve disease), 67 from disease of the arteries (mostly aneurism), and 4 from inflammation of the pericardium. The troops in London and Windsor had a very low rate of mortality from these diseases; but this may possibly have been accidental, owing to the small numbers included in the observations.

Amongst the remarks contained in the Sanitary Reports for the Home Stations during the year, Inspector-General Lawson states that the soldiers at Aldershot could not be induced to make any very free use of the lavatory for night ablution erected at the East Infantry Block. We concur with him in thinking that ablution after exposure to contagion, to be really effective, should be had recourse to immediately. The acting principal medical officer of the Plymouth district makes some practical remarks about married and unmarried soldiers. Referring to the fact that the number of admissions among the former is smaller than among the latter, he says that this has given rise to the notion that married men are more valuable—that is, the public gets more work out of them than it does out of the unmarried soldiers. But if inquiry be made it will be found, he adds, that the work of a regiment is done by the single, and especially by the young, soldiers. The old and married men are generally employed as officers' servants, grooms, mess-servants, clerks, orderlies, lamplighters, and what not. They are nominally, rather than really and practically, duty men; they rarely go on guard, and are therefore less exposed to some of the permanent causes of disease than the young and unmarried men, and, consequently, furnish fewer admissions into hospital. Besides, medical officers will, as far as possible, avoid admitting married men into hospital so long as their maladies can be treated outside. It follows from all this, that statistics by which it would appear that married soldiers render relatively the greatest amount of service to the State are not to be relied upon. Passing to the Foreign Stations, we find that indulgence in intoxicating drinks of bad quality is adverted to by several medical officers as a very fruitful source of disease. Invalids and others seeking information in regard to climates—such as the Cape, Japan, Australia, and New Zealand—will meet with a good deal of useful know-

ledge in this section of the Blue-book. The necessity for the provision of better barrack accommodation for the troops at Ceylon has long been acknowledged. The principal medical officer reports very strongly in favour of locating the troops on a plateau known as Horton Plains, about 7000 ft. above the sea level; and provided this can be done, and that there is no difficulty as to the water-supply, the recommendation seems to us a judicious one. A large portion of the annual Blue-book is generally taken up with the Report from the Bengal Presidency; but this has been omitted in the present volume, owing to the fact that a considerable portion of the necessary documents had not been received.

The Appendix contains, as we have said, a large number of papers, of varied character and different degrees of interest. We feel some disappointment in not meeting with anything bearing upon the late Franco-Prussian struggle. Professor Parkes's Report on Hygiene always forms a useful *résumé*. Just touching on the various points of interest in sanitary science during the past year, Dr. Parkes makes the subject of sewerage the most prominent and lengthy portion of his report. He passes in review the different systems that have been proposed, supplementing the information already published by comments of his own. The remarks at p. 221, on the spread of specific diseases, are worthy of perusal, inasmuch as Dr. Parkes has gathered up all the facts that have been published thereon in our own and other journals during the past year. Dr. Massy's paper on Hospital and Barrack Construction and Ventilation discusses the subject from the basis afforded by the results of various experiments performed at different times (by Dr. De Chaumont especially) on the relative characters of the air and its rate of circulation in buildings of different construction. No judgment is pronounced on the question of the relative merits of large as compared with small hospitals, although it is clear that the bearing of Dr. Massy's views is, on the whole, substantially parallel with those published by the late Sir James Simpson. The point of his paper, however, is to demonstrate the superiority of a certain class of buildings over others as regards the purity of their contained atmosphere and their capacities for efficient ventilation.

Among the papers is one on the Outbreak of Beri-beri in a detachment of the Ceylon Rifle Regiment stationed at Labuan, by Staff-Surgeon Jessop, prefaced by a covering letter from Surgeon Roe, of the Ceylon Rifle Regiment. This letter takes the heart, as it were, out of the lengthy report. The disease was unquestionably beri-beri, although at first grave doubts were entertained as to its nature. Beri-beri prevailed to a fearful extent about sixty years ago among the native and European troops of Ceylon. That it has some connexion with malaria there can be little doubt; but why its prevalence should be restricted within such well-defined geographical limits is not by any means clear. The disease does not appear until the subjects of it have been exposed to the morbific influences by a residence of several months, indicating that some gradual constitutional deterioration takes place. The sanitary improvements in and about Ceylon, and the drainage and reclaiming of swampy grounds, have caused the disease to disappear altogether at that station. Dr. Roe hazards the conjecture that the presence of chlorides and absence of iron in the drinking-water may have something to do with its causation. The troops at Labuan were ill-fed, overworked, and exposed to the night-air on guard, and the latter seems to have been the chief cause of their having suffered so much more than the women and children.

The Report on the outbreak of Enteric Fever at Pembroke Dock Camp need not detain us long. The investigations into the causes of it were evidently conscientiously worked out. Unfortunately, however, the vessel containing the first specimen of water forwarded to Netley was broken, and an analysis of that which was subsequently sent does not altogether remove the suspicion that the spread of the disease might have been due to this source. The conclusion of the Sanitary Committee appears to be that the limitation of the disease to certain parts of the camp was to be referred to their exposure to the exhalations from a latrine to windward of the affected huts.

The paper on Fever at Trinidad is good. It is illustrated by some coloured diagrams. That on Fever at Bermuda is, to our minds, inconclusive and wordy. The report on Cholera at Thayetmyo is too long. It might, with advantage, have been much curtailed. While on this subject, we may add that writers would greatly diminish the labour of readers if they would briefly summarise the points and conclusions at the end of their contributions. Surgeon-Major Leith Adams and Assistant-Surgeon Welch, of the 22nd Regiment, go fully into the subject of that variety of ophthalmia so common in the army, in which the affection is characterised by the presence of vesicular or "sago-grain" bodies in the palpebral conjunctiva, of the lower lid especially. The minute structure and relation of these bodies to endemic ophthalmia, as well as their prevalence among soldiers serving in warm climates, were some years back pointed out by Drs. Marston and Frank. Their presence, under ordinary circumstances, is not indicated by any subjective or inflammatory symptoms, except such as are of an insignificant character. They stand rather in the light of a predisposing cause to conjunctivitis and granular lids, imparting to the inflammatory affections of that membrane some peculiar characters. In their origin and development they stand in a very intimate relation to the close, warm atmosphere of barrack-rooms and ill-ventilated dormitories occupied by several persons. Some of the remaining papers are interesting, but they do not require any separate notice; that on Foreign Bodies in the Atmosphere possesses perhaps a certain amount of interest, and is well illustrated. One of the figures, we should imagine, was blown from the neighbouring sea-shore, for it closely resembles objects we have encountered when working with a microscope and an aquarium.

EPIDEMIC CHOLERA.

THE latest returns from Russia show a considerable decline in the activity of epidemic cholera in that empire, although the disease is still more or less prevalent in several widely separated provinces. On the 8th and 9th of May, 7 cases, 2 recoveries, and 3 deaths, were reported in Moscow; and on the morning of the 10th of May there were 11 cases under treatment. From the 17th to the 24th of April, 12 cases and 7 deaths occurred at Wilna. At Tambow, from the 26th of April to the 4th of May, 2 cases and 2 deaths were reported. In the district of Krestets, in the Government of Novogorod, there were 7 cases under treatment on the 16th of April; and at Wierzbolow, in Russian Poland, from the 16th to the 23rd of April, there were 12 cases and 7 deaths.

The epidemic in St. Petersburg is steadily declining, as shown by the following returns:—

	Cases.	Recoveries.	Deaths.
May 2nd ...	3	8	2
3rd ...	2	22	—
4th ...	4	7	—
5th ...	6	2	2
6th ...	3	6	2
7th ...	5	7	2
8th ...	3	7	1
9th ...	3	7	2
10th ...	6	—	1
11th ...	3	1	1
12th ...	2	—	—
13th ...	4	24	3
14th ...	3	4	3
15th ...	2	4	—

The total returns from the commencement of the epidemic on the 29th of August, 1870, to the 16th of May, 1871, were as follows:—Cases, 4507; recoveries, 2549; deaths, 1792.

News from the Persian Gulf confirms the supposition expressed in a previous number of THE LANCET, that cholera broke out at Bushire at the close of February. At Bassorah the epidemic appeared on the 17th of March; and, at the time of the latest reports, it was causing from ten to twenty deaths daily. The disease had extended to several places on the Euphrates, Kurnah, Madinah, and Sheikh-el-Shuyukh having been attacked. A strict quarantine had been imposed at Kut-el-Amarah upon craft ascending the Tigris, for the protection of Bagdad.

THE LANCET.

LONDON: SATURDAY, JUNE 3, 1871.

IT is greatly to be regretted that we have no satisfactory tribunal to which any important medical or sanitary public question can be referred for settlement. We venture to think that no one will be satisfied with the Report of the Select Committee on Vaccination. The document betrays its feeble parentage. It comes from a Committee selected under the auspices of the Government, presided over by a Cabinet Minister and Vice-President of the Privy Council, whose officers pull the wires. To these, add a representative of the Poor-law Board, and a couple of medical men for the sake of appearances, and we have a body of fifteen gentlemen, not five of whom have ever thought of the subject in their lives, and not more than three of whom are familiar with such investigations. The time of these amiable gentlemen has been sadly wasted. After having listened for eight successive meetings to the ravings of the anti-vaccinationists, they were regaled with a *réchauffé* of well-worn statistics, dug up from the depths of ancient blue-books for their special enlightenment and instruction; and it is a small compliment to their intelligence to find that they have reaffirmed conclusions arrived at nearly thirty years ago, and that they agree with the *general opinion* as to the protective power of cow-pox, and are able to present a large majority in favour of its being the duty of the State to endeavour to secure the careful vaccination of the whole population. Perhaps, after all, this is a satisfactory result. Modesty, under such circumstances, is a great virtue. The Committee have acted wisely in not going into subjects beyond their depth. They have omitted altogether the question of vaccinal syphilis, and they have been sufficiently independent to reject a paragraph which was proposed to them with the object of shelving the question of animal vaccination. But we think that they should have acknowledged their inability to settle such important questions, and should have suggested the appointment of some independent tribunal in order to satisfy the public mind thereon. People naturally say, if animal vaccination is provided in Belgium, why should it not be adopted here?—and they are entitled to an answer. But the incapacity of the Committee is further shown in the mention of revaccination. They say—"Vaccination is generally believed to require repetition about the age of puberty; but, as it is almost impossible to enforce revaccination, it is most important that all children should be vaccinated, both for their own sakes and that of the community, to prevent their catching and spreading disease." Was there ever such a muddle as this paragraph? "It is most important that all children should be vaccinated," because it is "impossible to enforce revaccination," and yet "revaccination is generally believed to be required about the age of puberty." Why, if there was one fact brought out distinctly in the evidence adduced to the Committee, it was that revaccination is, after all, the crucial test of protection. There was plenty of evidence to show that small-pox occurs amongst the vaccinated, but absolutely none to show that it occurs amongst the revaccinated; and yet the Committee have not the courage to affirm the principle, and, without a particle of evidence, they go out of their way to object to any proposal for enforcing it. On the subject of compulsion we regret to observe a similar narrowness of view. The Committee seem to think that the operation of the law must be confined to the infliction of a fine or fines, and they report as if the only alternative were to send a policeman to take a baby from its mother to the vaccine station. But they were distinctly told that it is not difficult to send the vaccinator to the parents' house, and that in Scotland, when he goes there armed with the authority of the law, he finds no practical difficulty in overcoming the scruples of the parents. We agree in the impolicy of repeated fines, and are glad to find that the Committee recommend that, whenever in any case two penalties have been imposed or one full penalty inflicted upon a parent, the magistrate should not impose any further penalty in respect of the same child. The improvements suggested by the Committee are—the compulsory registration of births, the compulsory appointment of vaccination inspectors, and the simplification of the registration of vaccination. Upon all the other disputed points of administration the Committee are silent. They do not propose to alter the law confining payments to district vaccination; so that persons in the metropolis will have still to go to stations a mile away when there is one within a door or two. No mention is made of the inconvenience caused by the undue enforcement of stational vaccination, or of the unpopularity occasioned by it. No suggestions are made for securing the revaccination of adults at convenient hours. The inhabitants of infected houses are still to convey the contagion to the densely-crowded stations. Nothing is proposed with the view of supplying the public with pure lymph; and there is no mention whatever of any increase of the fee. Indeed, it is obvious that the whole inquiry was just an excuse for leaving matters as they were; and the few proposals for improvement are the merest patchwork.

We believe the proper time has arrived for thorough investigation of the subject. We should like to see the Committee of the Medico-Chirurgical Society requested to assume official existence, and, with the addition of a few laymen accustomed to scientific studies, asked to report on the merits of the case. With such a report, the Government would have little or no difficulty in obtaining powers for carrying out their recommendations; and we might then hope that epidemics of small-pox, like that from which we are now suffering, would entirely cease.

AMONGST the causes that have been assigned for the prevalence of enteric fever in this country, none would appear to have been better established than that which connects it with the use of drinking-water contaminated by organic matter, and especially by the presence in such water of excrementitious matters discharged from the bodies of those suffering from typhoid fever. Dr. WILLIAM BUDD, of Bristol, has been a conspicuous advocate of this

doctrine. In a masterly series of papers he has pointed out that the affection of the bowels in enteric fever ought to be regarded as a specific eruption, corresponding to the skin eruption of other contagious diseases; and that the discharges from this source contain the specific *materies morbi*, and form one, although not the exclusive, way in which typhoid fever is communicated. The "Second Annual Report of the State Board of Health of Massachusetts," recently published, contains the results of an inquiry into the causes of typhoid fever as it occurs in that State, which possess some points of interest, especially in regard to the water-propagation theory. One person out of every thousand in that State, we are told, between the ages of five and seventy, dies yearly of typhoid fever; and by excluding the extremes of youth and age the proportion would appear much larger. Reckoning the mortality at one in ten of those attacked, it seems certain that more than one per cent. of the able-bodied adult population is rendered helpless every year from this disease, and for a period often extending over many months. The Board of Health issued a circular in May last with the view of obtaining information as to the agency of filth in causing typhoid fever, either through the medium of air or of drinking-water; and, at the same time, with the view of ascertaining the relation of the epidemic prevalence of the disease to the height of the subsoil water, as put forward by PETTENKOFER, of Munich. According to the tables of mortality, it is shown that typhoid fever in Massachusetts is a disease of scattered communities rather than of crowded towns, of rural rather than of urban districts. Replies to the questions in the circular were received from 163 towns. These are analysed and summarised in the Report before us.

As in this country, the disease is most rife in the months of autumn and early winter; but no season is exempt. The liability of the sexes to attack is about equal; and the disease, though it occurs occasionally in infancy and advanced age, is specially a disease of adolescence and early maturity, the maximum of deaths in any decade appearing between the ages of twenty and thirty. As regards its propagation by fouled drinking-water it is urged that, if this mode of diffusing the fever were the one most active, we should expect to find the disease most frequent and virulent where privies and wells are in closest proximity. Referring to the numerous large towns in the State where the ground is dotted all over with these structures, it is asserted that the registration returns do not show this to be the case. By way of illustration, we may take the testimony of Boston, as expressed in figures representing deaths from typhoid. If water-pollution occupies the pre-eminent position assigned to it in England as a cause of typhoid fever, this testimony ought, it is urged, to be far more positive than it really is. Old Boston, before 1848, was riddled with wells and privies, side by side, all over its limited and very crowded territory, and sewage contamination of drinking-water was inevitable. Since that date, however, the Boston water from Lake Cochituate has been "almost as free and abundant as air, and is of the purest quality." Few, if any, wells are in use now. The result seems to be a diminution of typhoid, but in no very striking degree; in fact, only such as might be accounted for by the purification of the air rather than the water. "The sewers are more thoroughly washed—and the people too." The evidence from other towns is in accord with that furnished by Boston. It is not denied, of course, that typhoid fever can be propagated by drinking-water; for the Report contains unmistakable evidence of its having been so propagated in several instances. Still, it is alleged that, in the majority of cases occurring in Massachusetts where the causes can be traced, air, rather than water, must be regarded as the vehicle.

So far we have not been speaking of sewage contamination of air or water of an ordinary but of a special kind, for it has contained what, according to some, is an essential element in the production of enteric fever—namely, some of the excreta derived from a person affected with that disease. The power of ordinary organic matters, fæcal or otherwise, under certain conditions, kinds, or stages of decomposition, to originate the poison of enteric fever, is a somewhat disputed point, as everyone knows; and there are some who consider Dr. MURCHISON to have been in advance of the facts in asserting such to be the case. It is of course difficult to exclude sources of error, for it is not at all essential that the excreta should have been recently derived from a typhoid fever patient; on the contrary, old materials, long undisturbed, on gaining access to air or water, may impart poisonous qualities to these, and induce the disease in individuals exposed to their influence. The Report about which we are now writing contains much evidence in support of the opinion that typhoid fever may be propagated by air contaminated by filth of various kinds. Running through the whole correspondence furnished by different writers in reply to the queries put by the Board of Health, is the recognition, more or less complete, of the agency of putrid air in causing typhoid fever. Among other causes, decaying vegetables in cellars are very often referred to. Where decomposition of organic matter ensues under cover, whether in a cellar or a drain, it seems to be attended with special danger. A peculiar condition of the soil, again, at certain seasons of the year, is frequently adverted to as among the causes of typhoid fever—the exposure of the bottoms of ponds &c. during the season of heat and decay, for example. The combination of a rich surface soil with a subsoil of clay has been likewise remarked upon as commonly coexisting in districts where typhoid prevailed. The evidence as to the propagation of the disease by contagion is contradictory, but, on the whole, it is believed to be communicable much in the same degree as erysipelas and puerperal fever. "The single continuous thread of probability which we have been able to follow in this inquiry leads uniformly to the decomposition of organised (and chiefly vegetable) substances as the cause of typhoid fever as it occurs at Massachusetts."

Our space precludes the possibility of our commenting at any length upon this Report, of which the preceding remarks only afford a brief analysis. We do not place very much reliance upon evidence collected by official circulars, and contained in a correspondence which often expresses the opinions only of the writers, without affording us the means of testing their value. It is often very difficult to distinguish between mere coincidences and the sequences of phenomena. Enteric fever, even in this country, occa-

sionally assumes a somewhat malarious type, and in warm climates this is still more distinctly and more frequently the case. On the other hand, it is possible that some of the cases ranged under the head of enteric fever in Massachusetts may have been really malarious fever without that implication of the Peyerian glands which is distinctive of typhoid. Experience has made us very sceptical also of the value of statements as to excellent drainage, improved water-supply, and so on; for it often turns out that extensive and costly systems of sewerage are far from satisfactory in their working. There seems to be a good deal of evidence as to the connexion existing between typhoid fever and vegetable decomposition—a connexion which has not, however, been established in this country, where an outbreak of the disease is more frequently, in our experience, attributable to the fouling of air or water by the products of animal and especially of fæcal decomposition.

THE question of the best mode of appointment to hospital offices has recently been brought into prominence in both a London and a provincial institution; and it is one of so much importance to the profession and the public that we cannot refrain from once more adverting to it. At St. Mary's Hospital, where there is a vacancy for a physician-accoucheur, it was understood that the election would be by the votes of the general body of governors, and hence that, as these governors could not be conversant with the relative merits of candidates, a road to success might be opened by diligent canvassing. Among the gentlemen who were put in nomination there was one (Dr. MEADOWS) whose claims seemed to be pre-eminent, although there were also others in every way eligible for the post. It was understood that Dr. MEADOWS would not canvass, and that the staff would not intervene. The natural inference was that canvassing might carry the day; and gentlemen, who would hardly have competed with Dr. MEADOWS in the face of a professional tribunal, were induced to spend money and take trouble in order to bring their claims prominently before less competent judges. At length, however, the medical staff announce that they are about to recommend Dr. MEADOWS to the governors for election; and so the labour and expense incurred by his rivals will in all probability be virtually thrown away.

The provincial election is one that has recently taken place at Guildford, of an honorary assistant medical officer to the Surrey County Hospital. We infer from a very sensible letter by Dr. HOLLAND, which appears in the *Surrey Advertiser* for May 27th, that an active canvassing of governors was practised in this instance, and that it led to the success of a candidate who would not have been preferred on professional grounds alone. Dr. HOLLAND suggests that the proper method of conducting future elections would be by a committee of selection appointed for the purpose, and receiving its authority as a trust to be exercised for the good of the charity and on behalf of the governors at large.

For this proposal there is, we think, a great deal to be said. At many hospitals the appointments are, in fact, made by the medical staff. But it is found in practice that a small body of gentlemen who often meet are very liable to fall under the leadership of one or two among their number; in which case the selection is made in a way that hardly excludes personal influences. Or, on the other hand, they may be hopelessly at variance among themselves—broken up into sections, each determined to oppose the candidate of the other, and only able to unite upon someone whose very nomination could not have been foreseen. A committee of lay governors could not possess the knowledge necessary for discriminating between the claims of rivals. A mixed lay and medical committee, however, would go far to exclude both professional jealousies and extra-professional influences. No human arrangement can be expected wholly to escape either criticism or error; but it seems certain that this one might reduce both to a minimum. It would, at all events, save distinguished candidates from any necessity for canvassing; and it would save those who were less distinguished from the degrading work and the heavy outlay which are the fruits of the present system. We have been credibly informed that a single hotly-contested election for the office of assistant-surgeon to a London hospital cost the beaten candidate no less than *twelve hundred pounds*.

IF any Englishman still retains a belief in Lord MACAULAY'S well-known formula, that the object of Government is the protection of the persons and property of the people, he would probably be disabused of it by the recent debates in the House of Commons on the kindred subjects of the Metropolitan Water-supply and the Adulteration Bill. With regard to the first of these, Mr. KAY-SHUTTLEWORTH moved, and Dr. PLAYFAIR seconded, a resolution to the effect that the water distributed in London ought to be derived from pure sources and delivered on a constant system. Mr. BRUCE, always wishful to run with the hare and to hunt with the hounds, expressed his readiness to accept the resolution as a harmless abstract statement of opinion, if only it were understood that nothing was to come of it; and, after a debate in which Mr. M'CULLAGH TORRENS and others it would almost appear held briefs for the water companies, Mr. CAVE moved the "previous question," and the resolution was thus disposed of. Immediately afterwards the House went into committee on the Adulteration Bill *pro formâ*, at once reported progress, and soon afterwards adjourned.

The argument, if so it can be called, of the Home Secretary, is that the metropolitan water-supply can only be effectually dealt with after the question of the government of the metropolis has been settled. He does not appear to see that, if this be true, it constitutes an urgent reason for proceeding speedily to such a settlement; but advances the utter neglect of one great question as if it were a sufficient excuse for the neglect of a greater. The various speakers laid much stress upon the steps that had been taken to free the present supply from excremental pollution, and to take the Thames water only from above the tidal flow; but they none of them appear to have been aware of the recent investigations of Mr. NETTEN RADCLIFFE into the character of the water so taken, immediately below the influx of the Mole, or to have recognised the fact that the importance of excremental pollution is not due to its constant unwholesomeness, but to the evidence it

affords of an open door through which the poison of typhoid or cholera, and possibly of other diseases also, may at any time be distributed. For anything we know to the contrary, pollution with normal excrement is only nasty; but the pollution may become deadly when the excrement is morbid. And the argument in favour of drawing supplies from the deeper chalk strata rests mainly upon the difficulty, nay the very impossibility, of ever excluding all sources of pollution from the exposed water of a river. The recent report of the Rivers Commission has shown us that the oxidising power of a running stream is less than has been supposed; but in the water from the chalk there could be no doubt that all surface impurities would be effectually removed by natural processes; while they could, of course, be effectually excluded during the softening, storage, and delivery. But underlying the whole debate in the House of Commons—alike the feeble and inconsequent observations of Mr. BRUCE, and the vigorous advocacy of a class interest by metropolitan members—there was the patent fact that the health, cleanliness, and comfort of a population of two millions of people were regarded as trivial considerations, proper to be set on one side until the arrival of some convenient season, secondary, on the one hand, to the arrangements of the Ministry, and, on the other, to the dividends of a few hundred shareholders. In other words, the Government does not exist for the protection of persons and property, but for the protection of itself against the adverse votes that might be marshaled by a combination of vested interests. The claims of defenceless masses give way before instincts of the most sordid self-preservation; and this in an assembly that is professedly representative of the people, but really representative of a few of the great trades that fatten upon them. We see no remedy except in the spread of education.

Medical Annotations.

"Ne quid nimis."

THE ADMINISTRATION OF FLOATING HOSPITALS.

WHEN a proposition to convert the *Dreadnought* hospital-ship into a temporary abode for small-pox convalescents was first mooted, we supported it cordially, believing the plan to be an excellent one for many reasons, and mainly because the patients would be more completely isolated on board than in any other place in or near the metropolis. But before recommending the scheme, we took care to be furnished with a categorical statement as to the amount of cubic space that existed between the decks of the ship, and then stated that, according to our knowledge and belief, she was well calculated to accommodate 100 acute or 200 convalescent cases, if no bulkheads or other obstructions to ventilation were put up. Under this arrangement the former would have had 2000 and the latter 1000 cubic feet of air each; and this cannot be considered as at all excessive, having regard to the fact that this cubic space is interrupted by wooden strata, and that the vessel has been used as a hospital-ship for acute cases, medical and surgical, during the past fourteen years. We were, therefore, surprised to learn that the General Purposes Committee of the Metropolitan Asylums Board had authorised an increase of 50 patients, so that, according to recent information, the ship now has on board about 250 convalescents. We are still more surprised to hear that it was contemplated to send a further instalment of 50, so as to make the number up to 300 patients. It seems, however, that the appearance of erysipelas has warned the committee of the unwisdom of their first resolution, and of the grave danger that would be incurred by the adoption of the second. Several patients appear to have been sent from Stockwell or Hampstead somewhat too early, and one fatal case has occurred on board. It is of course necessary to exercise very great care in the selection of cases for removal, so that the ship and its peculiarities be not accredited with any unfavourable results on this score. But it is still more necessary that there should be no crowding, and this rule cannot be too strongly insisted upon. The original complement of 200 patients should never have been exceeded, for though, by the energy of the medical officer and his staff, the sleeping quarters are kept in excellent order, no amount of scrubbing or ventilation will check the spread of erysipelas, if this disease once obtains a footing. These remarks apply with fourfold force to the immediate future, for an increase of temperature must necessarily demand increased caution. The proper supervision of a floating hospital implies some small amount of nautical knowledge, and it is to be hoped that the Asylums Board possesses this element of administrative success in dealing with the old *Dreadnought*.

TREATMENT OF GUNSHOT WOUNDS BY CONTINUOUS BATHS.

IT is pretty well known that the German surgeons made frequent use of local baths in the treatment of wounds during the late war; with what result, we may hope to learn when the medical and surgical history of that war comes to be written. We have heard very different opinions expressed on the subject. Be this as it may, however, the following abstract of a case that appeared recently in the *Süd Deutschen Presse* strikes us as containing several points of interest. Dr. Röder, the well-known oculist at Heidelberg, placed his extensive establishment at the service of the Baden War Department as a lazarette. Among other patients he received a Bavarian officer severely wounded. A mitrailleuse ball had so shattered the left knee that the patella, as well as the extremities of the three bones and the adjacent soft parts, were severely injured. Amputation was recommended, but the debilitated state of the patient, and the unsuccessful results of such operations when not performed immediately on the field, conjoined with the energetic remonstrances of the officer himself, induced the surgeon to decline operating. It was then determined to try the effect of the application of continuous baths at a blood heat. For this purpose one was specially constructed, in which the patient could remain day and night. It answered its purpose so well that he was enabled to remain in it almost continuously for four months. By means of a gas apparatus the water was maintained at the requisite degree of temperature. A pillow for the head could be raised or depressed by means of rack-work; a horsehair mattress, covered with gutta percha, occupied the bottom of the bath; water at 37° to 40° C. (104° F.) being added to two-thirds of its height. A stretched gutta-percha cloth was then adapted as a cover to the bath, so as to avoid wetting and exposing the patient's head to cold. At midday he was daily lifted out of the water, and placed in bed whilst the water was changed and the bath cleansed. During the fever stage the temperature of the water was at 40° C., to prevent the patient, whose temperature was nearly as high, feeling cold; but, as he began to recover, 37° C. proved almost too warm for him.

The beneficial results of this treatment may be thus epitomised. The specific gravity of the water, partly supporting the body, is said to prevent undue pressure and the occurrence of bedsores more efficaciously even than an air or water bed; and the permanent bath operates also in opposing the rise and development of fever, in washing away the pus and other secretions from the wound, and in maintaining the aërial purity of the room. During the time the bath was being cleansed, the patient was either placed in another or on a bed, the limb being supported by wire splints. The bath was furnished with numerous tubes for the purpose of allowing the foul water to be drained off. In the case to which we are now specially referring the injured limb has been preserved, with a somewhat stiffened joint, and the patient at the end of four months was able to visit friends in a neighbouring hotel.

In another case, that of a Prussian officer very severely wounded at the battle of Wörth, in which this plan of treatment was had recourse to with the view of alleviating suffering, it also seems to have answered exceedingly well.

STICK TO THE SHIP.

WE have heard that one of the most prosperous and most eminent of living engineers, when holding a comparatively subordinate office in the service of a certain railway company, was invited to occupy a position of higher trust and greater emolument in the service of another company. He consulted Brunel, who said, "I cannot take upon myself the responsibility of advising; but my own motto is 'stick to the ship.'" His friend adopted the motto, and had subsequently much reason to congratulate himself upon his decision.

The story and its moral have both been recalled to our remembrance by some of the many floating rumours in connexion with St. Thomas's Hospital; and we are anxious to lay down the position that the relation between a physician or surgeon and the institutions with which he may connect himself is one that ought not to be lightly severed. We will take the case of a practitioner who has become a member of the staff of a hospital, and a lecturer in its school; and who has not only risen in the staff, but has also done work by which he has merited and won the confidence of the public. We hold that it is not right of him readily to break such a connexion; or, on any slight ground of personal convenience, to transfer to a second school the reputation that he has gained at the first. He may, indeed, say that any field of work would have sufficed for the development of his powers, and may believe that he has rendered to his hospital as much as he has received. Still, he cannot alter the fact that the opportunities have actually been afforded to him at a certain place; and that, but for these opportunities, the work he has done and the position he has gained would have belonged to another. For men who are especially self-asserting, it will seem natural to exalt their own claims, and to cast those of their hospitals into the shade. But the recognition of what the hospital has done for its officers, and the readiness to render a due return, require a capacity to appreciate those nice obligations the perception of which forms the distinctive mark of a gentleman.

YELLOW FEVER.

OWING to the terrible epidemic at Buenos Ayres attention has been directed to the subject of yellow fever. Like all diseases that show a tendency to recur occasionally in an epidemic form, the prevalence and virulence of yellow fever are much influenced by the existence of sanitary defects. The epidemic outbreak in Buenos Ayres was ushered in by the appearance of cases among the poorest classes inhabiting the low-lying districts. The cases gradually increased in number and severity, and the disease, no longer confined to the most crowded localities, extended to the upper classes, until the beautiful city has become a scene of widespread disease and desolation. The way in which an outbreak of yellow fever is invited by the presence of insanitary conditions is well illustrated by some occurrences detailed in the recently published Army Medical Blue-book.

During 1869 yellow fever proved a cause of great mortality among the troops stationed at Jamaica, the deaths from that cause having been more than double the average of the preceding ten years. The disease first broke out in October at Mandeville, in a detachment of the 84th Regiment, with great virulence, six cases, all of them fatal, having occurred in a force of ninety-seven men. A careful inquiry on the spot is said to have led to the conclusion that it was attributable to local causes. For some four years before its occurrence the ground, which was badly drained about the barrack enclosure and neighbouring camp, had been systematically fouled with excreta from latrines; in fact, the sanitary condition of the locality was known to be extremely bad. The detachment was relieved and marched to Up-Park-Camp. Between the 17th October and the 15th December, one officer, twelve men, one woman, and one child of this detachment were attacked by yellow fever, and only two of the men recovered. All the cases arising subsequently at Up-Park Camp, except one, and that not fatal, occurred in men who had been serving with the detachment at Mandeville.

RESEARCHES ON THE MOVEMENTS OF THE INTESTINES.

IN the last part of the Reports of the Academy of Sciences at Vienna S. Mayer and S. v. Basch give the results of their observations upon dogs and rabbits after poisoning with woorara, artificial respiration being at the same time maintained. The abdominal walls were divided down the middle line, and raised on either side by means of hooks, so that the intestines lay in a kind of trough, and were touched as little as possible. They found that compression of the aorta, which was isolated as far as possible in the thoracic cavity, constantly induced movements in the previously quiescent intestines. Exceptions, however, occasionally occurred, and not only, as Nasse stated, when the compression was kept up for too short a time, but even when it was compressed for a considerable period. Section of both vagi in the neck, of the sympathetic nerves, of the cervical portion of the spinal cord, and of the splanchnic nerves, were all without influence on the intestines. Suppression of the artificial respiration caused movements of the intestines, just like arterial compression; and if an animal be poisoned with woorara, it may be remarked that in proportion as the respiratory actions become feeble the intestinal movements appear, whilst they cease if artificial respiration be well kept up. The intestinal movements called forth by suppression of the respiration, like those caused by arterial compression, are independent of the central nervous system. The influence of the suppression of the respiration is much more distinctly expressed if the vascular musculature of the intestine is withdrawn from the influence of the central nervous system by division of the spinal cord or section of the splanchnics. The vessels of the intestines do not then become contracted during the dyspnœa, and it may be clearly seen that the intestinal movements commence as soon as the blood becomes dark in the dilated vessels, and again cease when, by resumption of the breathing, the blood in the vessels has become bright. Hence it follows that the quality of the blood is the essential condition affecting

the movements of the blood. Experiments made with transfused blood lead to the same conclusion. The authors substantiate the statement that excitation of the vagus in the neck or thorax induces movements soon after death, though it is inoperative during life, and explain it by stating that the activity of the nerves commences at the period when the contracted bloodvessels dilate, and dark blood enters the intestines. The splanchnic behaves in the same way. This nerve contains, besides motor fibres, also vaso-motor fibres, the excitation of which last occasions the arrest of the intestinal movements. The so-called spontaneous movements occur under circumstances in which the intestinal blood is venous. So long as the excitation of the splanchnic prevents the entrance of venous blood into the intestinal vessels, no movements occur. They deny the existence of an "inhibitory influence" exerted by the splanchnic upon the intestine similar to that of the vagus upon the heart.

MR. SORBY ON SPECTRUM ANALYSIS.

WE have received, and had set in type, a communication from Mr. Sorby, F.R.S., on the subject of our recent remarks on the trustworthiness of spectrum analysis as a means of detecting blood-stains. We find, however, that Mr. Sorby's communication has already been published elsewhere, and we are therefore precluded from giving it insertion. It is enough to say that he maintains the method to be thoroughly trustworthy in skilful hands; and alleges that by its means "we can distinguish blood from all other animal and vegetable colouring matters."

There are, as we have already pointed out, two branches of spectrum analysis, one dealing with light emitted by incandescent vapours, and the other dealing with light transmitted through coloured media, the former being much more trustworthy than the latter, to which the spectroscopic examination of blood belongs. Mr. Sorby refers to the discovery by the latter method of "*some hundreds of different colouring matters in animals and plants which could not have been studied in any other manner.*" We will supplement the account of these discoveries by the remark that it is still an open question whether these hundreds of different colouring matters are chemically distinct, and that we are as yet quite in the dark as to their chemical structure. In our opinion such discoveries do not rank with the discoveries of cæsium, rubidium, thallium, and indium. Mr. Sorby will, we hope, pardon us for remembering that a new metal was once discovered by its absorption-bands. The metal was mythical, and was named jargonium.

REPORTED CURES OF LEPROSY.

IT is unaccountably strange that, with such ample experience of the worthlessness of specific cures for disease which are suddenly brought into notice from time to time, and which have no pretensions to be regarded as the result of patient and scientific research, the public should still be so ready to believe in such assertions as those which have lately been made in the public press as to the accidental discovery in the East of a *real* cure for the terrible disease leprosy. We can only ascribe this occurrence to the fact that, as long as memory can trace, anything that comes from a great way off has something wondrously taking about it, not less for the vulgar than for the ignorant people of quality amongst us. There is no questioning the fact that lepers do occasionally apparently recover from their disease if, during its earliest stage, they are subjected to the action of change of climate, improved diet, and other influences which tend to raise the general tone of the body. It is equally true that, under like conditions, by the proper use of local remedies, in connexion with that of general measures, a great amendment in the external appearance of the malady may be effected, so that even the naked-eye features of the disease may be made to greatly, if not almost entirely, disappear. But to suppose that the mere application of carbolic acid can *cure* the disease, which is the result of a profound alteration of the whole nutrition of the body, is not in any way warranted by the abundant facts in our possession. Leprosy is attended with the appearance of certain tubercular formations in the skin, and these are made up, as in lupus and syphilis, of a form of fibro-cellular tissue, which Virchow calls granulation-tissue, the peculiarity of which is, as contrasted with that of lupus and syphilis, that it does not tend to undergo change so rapidly. It is, however, similarly resolvable by the action of caustic applications; and this is really the explanation of the improvement induced, not only by the use of carbolic acid, but also by the old plan of applying arsenious acid, and by the more modern treatment by the oil of cashew-nut, suggested by Dr. Beauperthuy. But the liability to the reformation of the tubercular infiltration remains, and the disease is likely to return unless the state of the nutrition is altered by general remedies of a medicinal or hygienic nature. We are certain that a vast improvement and even an arrest of the disease, if treated in an early stage, can be brought about by the judicious combination of general and local remedies; but at present we have no evidence to prove that a cure for the terrible malady has been discovered, and this is pretty well shown by the later-observed results of Dr. Beauperthuy's treatment of leprosy. DR. Tilbury Fox mentioned, at a recent meeting of one of the medical societies, that he had seen the disease rapidly arrested, and its external manifestations almost entirely removed, under the use of large and continued doses of quinine, with purgatives. We believe that patient research and a careful following up of the results already obtained by the judicious combination of local means to cause absorption of the tubercular formations, and internal remedies and hygienic measures to improve the general health, will by-and-by give us a plan of treatment likely to be most beneficial in arresting or staving off the disease, and removing its more objectionable features, if it does not really afford a complete cure for the malady.

THE NAVAL RESERVE.

A VERY interesting and comprehensive paper was read by Captain Gardner, R.N., at the United Service Institution some few days ago on this subject, in which, among other things, the want of medical officers for the reserve was discussed. The proposals of Captain Gardner indicate that a medical staff should be formed of members of the profession willing to hold their commission for five years, no services being required from them except in a case of emergency, such as the prospect of invasion. Under such circumstances they would be required to serve afloat or ashore, and during the term of active service would receive the same pay as officers of the Royal Navy, and be entitled to the same pensions in case of wounds or injuries. They would, indeed, to all intents and purposes, hold a position analogous to that of medical officers of volunteers, and we cannot doubt that if a warrant such as that sketched out above were issued, no difficulty would be experienced in obtaining the requisite staff. We believe that a proposition of a somewhat similar kind was made officially by Mr. Mayo, Registrar-General of Seamen, some two or three years ago, who showed pretty conclusively that the force was incomplete without a medical staff, and could not serve as a distinct arm of the service either afloat or ashore until

this want was supplied. Unless Captain Gardner's suggestions are carried out, we shall find that the experiences of the Crimean War have been of no avail, and shall again recruit our professional staff hastily and expensively from civilians, who will be expected to jump into the work, without any previous organisation, and with a great waste of skilled labour as the inevitable result.

WATER-SUPPLY OF THE SOUTHWARK AND VAUXHALL COMPANY.

IN a report to the Board of Trade, Captain Tyler states the results of an inquiry made by him into the complaints of the Wandsworth District Board of Works and others on the subject of the water supplied to them by the Southwark and Vauxhall Water Company. The complainants' allegations were to the effect that the water delivered to them was bad in quality, and that such defect was due generally to imperfect filtration, and in specific instances to the admixture of tidal water with the company's supply. Captain Tyler's conclusion is that the complaints have been well founded. There can be little difference of opinion upon this point, seeing that it is established—(1) that up to a recent period the company possessed the means of drawing water direct from the Thames at Battersea into their reservoirs, and that the fact of this communication having been used on one occasion is admitted by the company, while there is "grave suspicion," if nothing more, that it has been used more largely; and (2) that one of the company's reservoirs at Battersea, when emptied for examination, was found to have "various springs" at its bottom which "were being supplied chiefly by the tidal water of the neighbouring river," the inflow being considerable in quantity. It is, however, satisfactory to learn that at length steps are being taken to "preclude all suspicion" of future communication by direct means with the tidal river just outside the company's works. As to the leaky reservoir, Captain Tyler says, "it is not right that any reservoir used by a water company for the reception and stowage of potable water should be exposed in this unnecessary manner to contamination," and he therefore reports that it ought to be rendered impervious to soakage. We recommend a perusal of Captain Tyler's report by honourable members before they next enter upon the question of the Metropolis water-supply in Parliament.

THE OPENING OF THE NEW WARDS AT GUY'S HOSPITAL.

THE *conversazione* held in the new wards at Guy's Hospital was a great success. There was a large gathering of the profession, and many objects of interest were provided for the delectation of the ladies. A concert was given in the upper ward, and the processes of match cutting, and matchbox making were industriously carried on by some particularly interesting children, who seemed to thrive well upon their work. On the first floor there was an abundant supply of scientific instruments, including microscopes, spectroscopes, the sphygmograph, &c. Many gentlemen were interested in obtaining a record of the state of their pulse, and some were not a little astonished to see the evidence of excitement, produced no doubt by the agreeable surroundings.

The treasurer received his visitors on the grand staircase, and refreshments were served on the ground floor. The wards are to be appropriated to medical cases. They are of similar construction to those which have so long been in use on the opposite side of the grand staircase. They are double, and to that extent objectionable; but making allowance for some escape of unburned paraffine from the many microscopic illuminators, it must be acknowledged that the means of ventilation were quite equal to the demands made upon them by the crowds of visitors.

MR. PAGET ON HIS OWN CASE.

Obsunt auctoribus artes. We desire to call attention to an original communication of more than common interest, which appears in another portion of our impression. In the "Mirror" of last week we recorded a case that was treated at St. Bartholomew's by Mr. Paget; and we have since been favoured by that gentleman with a letter to the following effect:—

"The account which you have published of my last important case at St. Bartholomew's Hospital seems to me to deserve completion by the publication of its sequel. It was in the examination of the body of the patient whose case is related in your last number that I was poisoned. While I was ill I used to think that my own case might well be the subject of a clinical lecture, and the notes which I enclose might have served for such a lecture if I had retained the surgeoncy of St. Bartholomew's. I beg you to use them in any way that you think best. They should be more complete, were it not that during acute illness one cannot record, and after recovery one cannot accurately remember, the signs and progress of a disease, or the thoughts which they suggest."

The sequel of the lecture will be given in our next number; and we need only say, further, how cordially we congratulate, not only the distinguished author, but also the public and the profession, upon the happy termination of the "case" that it records.

THE "RHIN."

THE Metropolitan Asylums Board have accepted the offer of Her Majesty's ship *Rhin* for hospital purposes. She will be moored in close proximity to the *Dreadnought* as soon as the consent of the Thames Conservancy Commissioners has been obtained. The vessel is already fitted up as a hospital ship, and it is supposed she will accommodate 150 convalescents from small-pox.

We venture to suggest whether it would not be more advisable to put acute cases on board. There is at present a great deficiency of hospital accommodation for Greenwich, Woolwich, and the neighbourhood. Mr. Lockyer told the Asylums managers that the nearest part of Greenwich was over six miles from Hampstead, whilst patients had been moved from Plumstead—a distance of more than eleven miles. He said that the patients greatly objected to being taken on so dangerous a journey to so long a distance from their friends. There had also been a high proportion of deaths amongst those removed, and there can be no doubt that some additional hospital accommodation is urgently required for that district. The managers agreed that the question should be taken into consideration before any other site is purchased, but we believe the difficulty would be best met by appropriating the *Rhin* to acute cases.

INFANT MORTALITY IN VICTORIA.

CONSIDERABLE discussion has lately been going on in the newspapers of this colony in reference to the mortality of children, the point at issue being whether the climate was or was not favourable to infant life. An important contribution of facts upon the subject has been published by Mr. West Ford, honorary surgeon to the Protestant Orphan Asylum, at Emerald-hill, Melbourne, showing that a large community of children, so situated as to ensure prompt treatment of their ailments, have experienced on an average of eleven years a mortality rate of less than 1 per cent. Mr. Ford remarks that he could quote a period of nearly

two years without a single death out of a daily average of 247 children, and he attributes this result to the assiduity with which slight ailments are watched for and treated—a matter obviously of the first importance in view of the fact that disease runs a more rapid course in the colony than in England. The statistics of the Orphan Asylum decidedly support that side of the argument which maintains that, so far as climate is concerned, children in Victoria are under no disadvantage by comparison with children here at home, but rather the reverse. And it may be noted that the last report on the Vital Statistics of Victoria by the Registrar-General of the colony shows that the proportion of deaths of children under one year of age to the total registered births was 12½ per cent., while the English registration statistics give a corresponding proportion of 15½ per cent. Thus one of the most significant tests of infant mortality tells much in favour of the colony as against the mother country.

CONTRACTILITY OF THE CORPUSCLES OF THE CORNEA.

ALEX. ROLLETT communicates to the *Centralblatt* the results of his observations on the cornea of the frog, freshly removed from the animal, placed in the aqueous humour, and submitted to the action of electrical shocks. Before the passage of the current, the corneal tissue appears to be homogeneous, or with only a few radiated corneal corpuscles scattered through it; but, immediately after excitation, elongated and sinuous, fusiform, elliptical, and round, clear figures make their appearance. These are nothing but the optical expression of longitudinal, oblique, or transverse sections of the communicating system of lacunæ traversing the cornea, the dilated nodal points of which are occupied by the nucleated central portion of the radiating and contractile corneal corpuscles. The contours of this canalicular system are rendered visible by the electrical current, because it occasions the retraction of the corneal corpuscles from the walls of the cavities in which they are contained. In all such cases the nucleated masses of protoplasm may be seen surrounded by a transparent area, and with small spikes projecting from its surface, which are the retracted arms. The appearances described vanish if the shock is not repeated; but can be made to reappear if the current is again transmitted. Thus Rollett maintains that the corneal protoplasm is contractile. He is therefore essentially in accord with Kühne, and opposes Engelmann. He differs, however, from Kühne in considering that the contractile protoplasm is contained in a cavity with proper walls.

ANNUAL DINNER OF THE MEDICAL OFFICERS OF THE UNITED SERVICES.

THE third annual dinner of the officers of the Army, Navy, and Indian Medical Departments took place at Willis's Rooms on Friday evening, the 26th ult., under the presidency of the Director-General of the Naval Medical Service. The Presidents of the Royal Colleges of Physicians and Surgeons were present as guests on the occasion. Between fifty and sixty officers dined together, and among those present were Sir T. Galbraith Logan, K.C.B., Director-General of the Army Medical Department; Dr. Anderson, Inspector-General of Hospitals and Fleets; Inspector-General Salmon, R.N.; Dr. Dick, Mr. Lloyd, Dr. Gimlette, Inspector-General P. Leonard, Mr. Piers, Inspector-General Frazer, Staff-surgeon Bowden, Dr. Davidson, Dr. F. de Chaumont, Inspector-General Lawson, and others. Some interesting speeches were made on the occasion, and altogether the evening was spent with much satisfaction to all present.

STATISTICS OF LIFE ASSURANCE.

MR. A. H. SMEE has presented to the Board of Directors of the Gresham Life Assurance Society a second report on the causes of death in a thousand cases where claims have been made upon the Society. Some of the deductions are interesting and useful, and, although the statistics presented are as yet too limited to found thereupon very reliable conclusions, some tabular statement of the same sort might be advantageously adopted by the chief medical officer of every assurance society. The main conclusions arrived at by Mr. Smee are that "tubercular diseases" are most severe in West Germany, that "Bavaria and France suffer most severely from diseases of the nervous system," and "that diseases of the digestive organs greatly exceed in England the relative number found in other countries." In congratulating the author on the industry displayed in the compilation of this report, we take leave to remind him that the institution at Victoria-park cannot justly or properly be called a "consumptive" hospital, and that, though Tables T and U are quoted, no tables so lettered exist in the report that we have had the pleasure to peruse.

THE CLINICAL SOCIETY.

THERE was a very scanty attendance at the last meeting of the session, on Friday, the 26th ultimo; and the discussions which took place were confined to six or eight speakers. We may fairly congratulate the members on the work of the past six months. Fifteen meetings have been held, and the papers have included very many subjects of general interest both in medicine and in surgery. We think, too, that there has been less tendency to bring forward single "extraordinary" cases, but rather to discuss the symptoms, history, and treatment of diseases commonly and constantly met with. The secretaries have exercised a wise discretion in commingling medical and surgical subjects judiciously, which is important, so that none can say "I could not speak for lack of opportunity."

THE CENTRAL CHAMBER OF AGRICULTURE AND POOR-LAW MEDICAL RELIEF.

THE subject of Poor-law medical relief, which was to have been dealt with at the meeting of the Chamber on the 2nd of May last, and which was adjourned in consequence of prolonged discussion on Mr. Goschen's Rating and Local Government Bill, will come on for consideration on Tuesday, the 6th of June, at the Salisbury Hotel, Salisbury-square, Fleet-street, at 12 A.M. precisely. The question will be opened by some introductory observations from Dr. Joseph Rogers. As this is the first time that this question has ever been discussed by a non-professional meeting, it is to be hoped that those gentlemen who are interested in a more efficient system of Poor-law medical relief will make a point of attending, and of supporting Dr. Rogers in his undertaking.

VACCINATION ARRANGEMENTS IN LAMBETH.

THE Poor-law Board have written to the Lambeth Guardians requesting them to reduce the number of public vaccinators from eight to six. In so large and populous a district the propriety of this proceeding appears to us to be more than questionable. At any rate it should be shown that the present vaccinators have failed to keep up arm-to-arm vaccination, or that they have less than 25,000 persons in each district. Irrespective of all other considerations, altering the arrangements in the midst of an epidemic recalls President Lincoln's saying, "that it is a bad plan to swop horses when crossing a ford."

CATTLE DISEASE AND SMALL-POX.

THAT we are more careful of the lives of our bullocks than of our people—a statement which has acquired a certain degree of popularity—is indignantly denied in the current number of the *Milk Journal*. According to our contemporary, the Government, acting in the interest of a few dealers in foreign cattle, but in opposition to the true interest of the country, permits "the systematic—the regular weekly—introduction and dissemination of foreign diseases, and the expert method of establishing fixed stations for such diseases in Great Britain and Ireland, that are responsible for the constant high rate of mortality in our herds which ensures an ever-increasing scarcity of meat."

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.

DURING the year ending March 31st, 1871, the sum of £419 16*s.* 6*d.* has been received from working men, as against £352 last year. The amount received from collections made in churches is £151 3*s.* 1*d.*, being an increase on last year of £79 18*s.* 5*d.*, as the first-fruits of "Hospital Sunday." After paying the expenses of the year, there is a balance of £392 13*s.* 3*d.* in favour of the institution, in addition to an endowment fund of £5385 6*s.* 1*d.* His Grace the Duke of Devonshire, the president of the hospital, has every reason to be proud of the institution, whose prosperity, though due in no small measure to himself, is also another example of the benefits of "Hospital Sunday."

QUARANTINE.

THE Privy Council has issued a quarantine order respecting all ships arriving in ports of the United Kingdom from Cuba or from any place lying between 35 degrees and 60 degrees West, and between 4 and 40 degrees of South latitude. This order takes effect on and after the 30th of May, and refers chiefly to the epidemic at Buenos Ayres. The order is, indeed, issued in the interests of commerce as well as of health, for if no plan of supervision were adopted in this country, all vessels proceeding from British to Mediterranean or other European ports would be placed in quarantine on arrival.

THE RESULTS OF ROUTINE.

THE unfortunate subject of small-pox, whose peregrinations in and about Greenwich we alluded to last week, appears ultimately to have found his way to the union, where he was taken charge of by the master, sent to the small-pox hospital at Stockwell, and died. This practical result of routine will probably induce the Metropolitan Asylums Board to invest the medical superintendent of the *Dreadnought* with more discretionary power in dealing with acute cases that may at any time be sent on board from vessels coming up or going down the river.

SALT AND WATER INSTEAD OF BUTTER.

IT is very profitable from the seller's point of view to obtain the price of butter for salt and water. From the *Milk Journal*, which is publishing some analyses of different kinds of butter, it would seem that the substitution of salt and water for butter is practised to a very considerable extent in commerce. Whilst genuine butter ought to contain upwards of 83 per cent. of real butter fat, certain kinds of butter contain very much less; thus "Hamboro repacks" contain 62·8, and "Bosch" 69·4 per cent. of fat.

THE action of Craig *v.* Blake, at Edinburgh, was concluded on the 31st ult., with a verdict in favour of the pursuer, and one farthing damages.

WE beg to call attention to the announcement in our advertising columns that a competitive examination for the Army Medical Service will be held on the 9th of August next. The number of vacancies cannot yet be accurately ascertained of course, but it is expected that there will be between twenty and thirty to be filled up by that date. Intending candidates may obtain all necessary information by application to the Director-General of the Army Medical Department, 6, Whitehall-yard.

ON Sunday last Mr. Russell Goldie, who had lately been appointed superintendent and secretary of St. George's Hospital, was found dead from the effects of an overdose of prussic acid. An inquest was held at the hospital on Wednesday, and the jury returned a verdict that the acid had been taken as a medicine to allay pain.

DR. T. S. HUTCHINSON, medical officer of No. 3 District, Hollingbourne Union, Kent, has been awarded by the Medical Department of the Privy Council £2 15*s.* for meritorious vaccination in his district.

THE Metropolitan Asylums Board have appointed a Committee to consider in what manner the vaccination of the metropolis might be rendered more efficient.

YELLOW FEVER IN BUENOS AYRES.

WE have already given a short account of the pestilence now raging in Buenos Ayres. The following additional particulars will interest our readers. The disturbances which have so long affected the political state of the Argentine Confederation seem to be reflected in the condition of health of the population. At the close of 1868 (to go no further back) Buenos Ayres suffered from a severe outbreak of cholera, which had previously been ravaging both the Confederation and Paraguayan troops in the interior. This epidemic, it would appear, has still not exhausted itself in the Argentine provinces; for, according to a late mail, cholera was proving almost as fatal at Corrientes, a large inland city on the Parana, as yellow fever at Buenos Ayres. Since the outbreak of cholera at the close of 1867, Buenos Ayres has never been free from serious epidemic disease, particularly small-pox. This malady, at all times fatal in the city, was so predominant at the beginning of the year, that the earliest reported cases of yellow fever attracted comparatively little attention.

During the last week of January, the heat at the time being unusually great, and the difference between the temperature of the day and night comparatively slight, cases of yellow fever occurred in a district of the city notorious for its foulness even among the foulness of Buenos Ayres, and which is largely a place of resort for the poorer classes of immigrants. In the course of February the disease gradually extended in this locality, and appeared elsewhere in the city; but, notwithstanding that popular observation in the infected neighbourhoods maintained that all diseases were becoming modified by yellow fever, the existence of the disease in the city was questioned by some, to the detriment, it is averred, of effective early measures. At the beginning of March, however, it could not longer be doubted that yellow fever in its gravest form had got headway among the population, and was spreading with frightful rapidity.

In the face of this visitation the measure which would seem to have commended itself chiefly to the Government of the city and Confederation had been the emptying of the city as much as practicable of its inhabitants. Business was at a stand-still, and a decree of the Government of April 11th closed, during the past month, the public offices, legal tribunals, and banks, the service of the port, the telegraphs, and post-office being alone exempted from the operation of the edict. The paralysis of trade is

so complete that it is feared Buenos Ayres will not recover quickly from this interruption of a growing prosperity.

Before the outbreak of yellow fever the Government of the Confederation had authorised the expenditure of upwards of a million pounds sterling on the sewerage and water-supply of the city, and the framing of the necessary works had been intrusted to Mr. Bateman. It is to be hoped that the present frightful visitation will not interpose any financial difficulties to the early execution of these very necessary improvements. Buenos Ayres has a miserably defective water-supply both in quantity and quality; and below the surface it is a Malebolge. Indeed, so filthy is the soil, that it is averred by scientific residents that the necessary works for sewerage and water-supply cannot be executed without some large cost to health and life during their execution, on account of the malaria and miasm which will be evolved by the disturbance of soil. This, if it happened, would, however, be a minor evil compared with the persistency of fatal epidemic diseases and the chances of recurrence of pestilential outbreaks of yellow fever and cholera.

Buenos Ayres is probably suffering, in one sense, from its increasing prosperity. The stream of emigrants which has been flowing into it of late years has densely packed its lowest quarters, and added to its foulness in a rapidly increasing and insufficiently appreciated ratio. The present pestilential outbreak of yellow fever is one of several lessons which the local and central Government has too slowly learned.

THE SMALL-POX EPIDEMIC.

THE Registrar-General reports that the fatal cases of small-pox in London, which in the two previous weeks had been 232 and 267, were last week 257; in the seven weeks ending last Saturday the weekly numbers have averaged 264. In eight permanent and temporary hospitals for this disease 112 deaths were recorded last week, of which 34, 28, and 34 occurred respectively in the institutions at Hampstead, Homerton, and Stockwell. After distributing these deaths among their proper districts, it appears that 21 deaths belonged to the West group of districts, 65 to the North, 22 to the Central, 51 to the East, and 98 to the South. The decrease was largest in the North districts, while the numbers showed a slight increase in West and Central London. The greatest fatality from small-pox was shown last week in St. Pancras, Shoreditch, Bethnal-green, Southwark, Walworth, Clapham, Battersea, Peckham, and Camberwell. The deaths in Battersea sub-district, which in the three previous weeks had been 14, 13, and 13, declined to 10 last week, which, however, showed an annual death-rate equal to 10 per 1000 of the enumerated population.

In Southampton, 16 deaths from small-pox were registered last week, against 13 and 17 in the two previous weeks; the annual death-rate from the disease last week was equal to 17 per 1000 persons living, and a return made to the Sanitary Committee of the town shows that there are 1000 cases in the town out of a population of less than 50,000, besides those in the workhouse. In Weymouth there were 9 deaths from small-pox last week, an increase of 3 upon the previous week, and showing a death-rate of 32 per 1000 persons living. The 14 fatal cases in Great Grimsby showed a decline of 4 upon the previous week, but gave an annual rate of 25 per 1000; no less than 122 deaths from small-pox have occurred in this town, with a population under 30,000, since the outbreak of the epidemic about two months since.

SMALL-POX IN IRELAND.

There has been a very slight fluctuation in the number of cases of small-pox admitted into the Belfast Union Hospital for the last few weeks. The report of this hospital for the week ending May 13th shows that 3 fresh cases were admitted, that 2 had died, and 25 were still under treatment; whilst in the week ending May 20th 2 cases were admitted, and 26 inmates were under treatment.

In Waterford, another case has occurred—a boy, who has been removed to hospital, and precautions have been taken to isolate the disease as far as possible.

In Dublin, a child aged two years and three months died on the 9th ult. of small-pox, who had been vaccinated; and on the 15th a woman, aged forty, died from the confluent form of the disease in Cork-street Fever Hospital.

OUTBREAK OF FEVER AT EAST BARNET.

MR. J. NETTEN RADCLIFFE, one of the medical inspectors of the Privy Council, has recently been inquiring into an outbreak of fever in connexion with nuisance from cesspools in New Barnet, a new and rapidly increasing village which has sprung up in the vicinity of the Barnet station of the Great Northern Railway, and into an allegation that the water-supply of East Barnet is impure.

With regard to the fever, it appears that St. Wilfred's-road has been the locality which has suffered most, for in one house seven individuals were attacked, two fatally, while at the time of the inquiry some of the attacked were still ill. The medical attendant ascribed the fever to poisoning by sewage emanations, and Mr. Radcliffe stated that this explanation accords thoroughly with the facts. The sewage arrangements of this road consist of four large cesspools for about thirty or forty houses, or more; two of these cesspools are open and two covered, the two open ones receiving the overflow from the covered ones. The whole are situated in a field a few yards from the houses, and their overflow runs through open trenches into Pyne's-brook, and ultimately into the river Lea. At the time of the inspection, Mr. Radcliffe says, "the open cesspools were full of fetid sewage, of which also a sluggish stream was running along the open trenches." The sewage arrangements and the nuisance arising from them are condemned in the report as "in the highest degree dangerous to health."

The sewer authority of the parish has been taking steps for amending this state of things, for we learn from the report that a committee of the vestry of East Barnet—which is the body charged with the duty—has adopted a plan of sewage irrigation, and has applied to the Home Office for sanction to borrow the money to carry out the necessary works. The Barnet Board of Guardians, however, has not so actively discharged its duties with regard to the nuisances, for the report says that since the appointment of the Sewer Committee by the Vestry, the guardians of the union had given up their functions of nuisance inspection for that part of the union; this, however, would appear to be under the misapprehension that the action of the sewer authority covered the duties as to nuisances imposed upon it by the Legislature—a not altogether inexcusable mistake, considering the muddled state in which sanitary legislation now is; but no doubt, now that the nuisance authority has been made acquainted with the mistake, active steps will be taken to remove those nuisances which have been stated to be so dangerous to public health.

With regard to the water-supply of East Barnet, which is drawn from a well in close contiguity to a filthy ditch and a privy, and is stored in an open reservoir, it is scarcely a matter of surprise that it should be, to some extent, polluted; and though some steps have been taken to avoid contamination, Mr. Radcliffe recommends, with a view to prevent pollution, that the reservoir should be properly covered, and that the ditch referred to adjoining the pumping-station of the Water Company, and the privy which is situated on the company's premises, should be so dealt with as to prevent the possibility of their becoming sources of contamination to the drinking-water which the company distributes.

We cannot too seriously press upon the several authorities concerned the necessity for taking steps to secure the objects for which the report which we have been considering has been written.

PRESENTATION.—At a meeting held lately in Tipperary, Dr. Bradshaw was presented by some friends with a purse containing 100 sovereigns, on his retirement, through ill-health, from the situation of medical officer to the Bansha Dispensary district, having held that appointment for the last twenty-two years.

Correspondence.

"Audi alteram partem."

THE CONSTANT CURRENT IN THERAPEUTICS.

To the Editor of THE LANCET.

SIR,—I am pained by the tone of Dr. Anstie's letter in your journal of May 20th. I do not think that the remarks I made as president of the Clinical Society were fairly obvious to an expression of anger and blame.

My attention was not directed to Dr. Anstie's letter until this morning (May 27th), or I would, with your favour, have replied to it in your last issue. What I intended to say, and what I think I said, respecting the use of the constant current in neuralgia was to this effect: That we first wanted a better diagnosis of the cases; that pain was often of such a nature as to be relieved by many means; that of the three cases related at the meeting, one only had been cured—relief in one was varied and uncertain, and one had apparently not been benefited at all. I went on to say that it was desirable to criticise more carefully the actual operation of the constant current in the cases cured by it, since it was notorious that inert means, like the "metallic tractors" of former times, could produce general evidence of "good effects."

Dr. Anstie mistook the feeling which prompted my remarks in attributing them to any intention on my part to persuade the members of the Society either way as to the subject before us. I asserted that at present it is uncertain in what cases the "constant current" is therapeutical, and that we required more knowledge of its *modus operandi*.

Dr. Anstie says there is already established a scientific basis for the belief in its efficiency. The error I seem to have committed was in expressing a doubt if there were as yet a fair empirical basis for such belief. It is admitted that the constant current does not cure all forms of neuralgia; therefore, if there exists a known scientific basis of its operation, this will of necessity show why the cases that are cured by it are cured, and why it fails in others. Until this is fully set forth, and I do not think it was set forth in the communications to the Society on the night referred to, I must feel that I was not wrong in pleading for more exact evidence on the subject.

Yours truly,

May 27th, 1871. WILLIAM W. GULL.

P.S.—Dr. Anstie says that twenty years ago "no apparatus existed (at any rate in this country) by means of which an electric current could be applied with constancy within the modern meaning of the term." Dr. Anstie forgets that the constant battery was the invention of our country, by Professor Daniell, of King's College, more than thirty years ago.

To the Editor of THE LANCET.

SIR,—In common with many of your readers who try to keep *au courant* with the medical literature of the day, I have been surprised and disappointed on reading Dr. Gull's remarks at the Clinical Society on the constant current. I trust these remarks may call forth abundant evidence on the other side. Having used the constant current for the last three or four years, especially in cases of tic and neuralgia generally, I can bear testimony to the great benefit conferred upon the patients. The relief is often immediate, and seldom delayed beyond three or four applications. It may be said that this is a vague and general statement. What can be more vague than Dr. Gull's assertion that he had made elaborate researches *twenty years ago!* Will Dr. Gull tell us what these were, and with what apparatus made? It seems to me he might as well deny the value of the electric telegraph on the evidence of experiments made a century ago. It is to be hoped that Dr. Gull will retract those remarks of his, evidently made in haste.

It requires not a little strength of mind to use electricity as a remedy, because one's brother practitioners are too ready to cry "Quack!" when an obstinate case has been cured by its means. I say "cured" advisedly, for I have cured numbers of patients upon whom I and others had tried almost every remedy, including those used hypodermically. It is a melancholy fact that in not more than two or three London hospitals is a galvanic battery in working order to be found.

It is really too bad that a remedy of such great power, both for good and evil, should be almost unknown to the most industrious medical student. Hence the general ignorance upon the subject, and those who are unacquainted with it and too lazy to acquire a knowledge of it, will be content to hide behind Dr. Gull's mantle, and continue to cry "Quack!" with renewed strength and vehemence.

I hope before long to place before the profession evidence of the great good to be obtained by the use of the constant current, together with details of cases which have been cured by its use.

No doubt Remak much exaggerated the advantages to be derived from galvanisation of the sympathetic; still no one who will try it patiently, and in many cases, can possibly deny the wonderful effects which are occasionally produced. If we are to abstain from applying a remedy because "it lacks a scientific basis," we should refrain from the administration of many, if not most, of our most valuable drugs. It is sufficient that our patients find their pain relieved.

In conclusion, I can but hope that Dr. Anstie may find himself supported by a fair number of experimenters. It must be remembered, however, that to practise medical electricity successfully demands great patience and expensive and troublesome apparatus. These are being improved daily, and I trust the day is not far distant when electricity, both as a valuable means of diagnosis and as a remedial agent, will be understood by every well-informed physician.

I am, Sir, your obedient servant,

Leamington, May, 1871. H. STANLEY GALE.

ON DIGITAL EXAMINATION OF THE UTERUS AND OF THE PELVIC CAVITY.

To the Editor of THE LANCET.

SIR,—I am much obliged to Dr. Henry Bennet for his friendly criticism of my lecture on the above subject. When, however, Dr. Bennet says that my statement as to the very great prevalence of the use of the speculum, to the exclusion of other methods of examination, is "totally and entirely wrong," I must be excused for repeating that, on the contrary, it is true. It is a fact which has been daily brought before me for some years past, in hospital and in consulting practice.

I am quite aware that digital examination of the uterus is not a new procedure. I never stated that it was. The object of my lecture, introductory to the course of clinical lectures I am in the habit of delivering in University College Hospital, was to inculcate its primary importance.

It affords me much gratification to be made aware that Dr. Henry Bennet so entirely agrees with me as to the "primary importance" of digital examination of the uterus.

I am, Sir, faithfully yours,

May 29th, 1871. GRAILY HEWITT.

To the Editor of THE LANCET.

SIR,—In a clinical lecture given by Dr. Graily Hewitt, lately published in THE LANCET, I find the following statement:—"Within the past thirty years much attention has been given to the investigation of the physical condition of the generative organs. For some time the speculum was the instrument almost exclusively used in obtaining information as to the physical condition of the uterus. This method of investigation has been followed, in too many cases, to the exclusion of all other methods of examination. One cannot therefore be surprised to find that in many instances very remarkable physical alterations of the uterus remained quite undetected, since the examination was confined to a visual examination of the os uteri."

These assertions, so contrary to fact, show how little Dr. Graily Hewitt is conversant with the works and the teaching of Recamier, Lisfranc, Velpeau, Dupuytren, Trousseau,

and Gendrin, who, while fully recognising the precision of diagnosis to be often derived from the use of the speculum uteri, only admitted its value as supplemental to a digital examination, of which they always recognised the paramount importance. I have no hesitation in affirming that all subsequent writers of any eminence on diseases of women have taught the same lesson either by example or by actual precept; and I only claim to have made myself the intelligent echo of those who have preceded me, when I stated in my Handbook of Uterine Therapeutics, "that no other mode of examination gives so many valuable elements of diagnosis as a digital examination, that it is often the only one required, and the only one that is not fraught with danger."

A little further on, in the same lecture, Dr. Grailly Hewitt leads his pupils to believe that the extreme importance of a digital examination has at least been recognised in a recent work by Dr. Courty.

I do not know how far my friend Dr. Courty will like being singled out for praise, equally well deserved by so many of his predecessors and contemporaries; but I beg to enter my protest against Dr. Grailly Hewitt's mode of writing history for the pupils of University College.

I am, Sir, yours obediently,

Grosvenor-street, May 24th, 1871. EDWARD J. TILT.

THE DEFECT OF HEARING IN DIPHTHERIAL PARALYSIS.

To the Editor of THE LANCET.

SIR,—In reply to the questions asked by Dr. Hughlings Jackson in your last impression, I write to give a brief statement of the case in which this occurred. Mrs. W. resided in a house the drainage of which was admittedly bad, and had been ailing for several days before I saw her. She then complained of great weakness and slight fever. The throat was red and inflamed, and she thought this was caused by exposure to damp some days previously. On the second day after I saw her the characteristic exudation appeared, and at the same visit I observed slight deafness. On the next day this had much increased, and there was great difficulty in deglutition. In twenty-four hours the paralysis was complete, so that she could swallow nothing. The muscles of the larynx were also affected, as she could not speak. The paralysis gradually extended to the muscles of respiration, and I think the muscles of the eye were also affected. I judge so from the appearance of the eye and the permanently dilated pupil. The usual remedies were used, but the patient sank, starved to death, in six days. The defect in hearing was not slight; she did not hear except when spoken to in the loudest pitch of voice, and, as she could not speak, nodded a reply.

I am, Sir, yours faithfully,

May 29th, 1871. JAMES THOMPSON, M.D.

VACCINATION FROM THE HEIFER.

To the Editor of THE LANCET.

SIR,—In the present discussion on vaccination, the following cases of revaccination, *direct from the calf*, performed on a family of twelve persons, appear to me to bear a certain amount of interest as regards complications that may arise even under such circumstances.

In six the ages varied from nine to twenty years; of these, three had enlargement of the glands in the axilla; five healed in three, and one in four weeks. In the remaining six, the age was from twenty upwards; of these three suffered considerably from tenderness in the axilla, with an inflammatory condition of the entire arm on its outer surface, down to and slightly below the elbow, the ulcers having healed respectively in fourteen, seventeen, and thirty-three days. In the last a papular eruption appeared on the arm before, and did not disappear until a short time subsequent to, its healing. In the remaining three there was enlargement of the glands in the axilla; the ulcers healing, two in seven, and one in eight weeks. In two the ulcer was elevated, with a thickened base; the third somewhat excavated, with an irregular bleeding surface, sharp, well-defined edges and thickened base, followed by a small abscess below the clavicle.

The only treatment employed was bread-and-milk poultice for a couple of nights, and subsequently water dressing.

The vaccination was performed in each case at three points on the outside of the left arm over the deltoid, all of which were successful, except in three of the youngest, in which one point failed in each. All the above have continued in good health since their local troubles terminated.

I remain, Sir, your obedient servant,

May 27th, 1871. JOHN W. TROTTER, Coldstream Guards.

THE LATE INQUEST AT CHURCH.

To the Editor of THE LANCET.

SIR,—I see in your issue of Saturday, the 27th inst., my name brought prominently before the medical public.

I am very sorry that your informant has not been able to state more correctly the real facts as regards the late police-sergeant of Church. So far as my calling on the patient unasked is concerned, it is utterly false. Neither can I express too strongly my disapprobation of any medical man's interfering with another's patients, and the only part I played in that affair was simply this:—The wife came running down to my surgery on Wednesday evening about seven o'clock, being their regular attendant, residing only a few yards from their house (Mr. Martland a distance of at least four miles), and begged I would go at once to see her husband, as she was afraid he was dying. Seeing the woman's distress, could I do less than go? or, would it have been more humane to have added one drop more of bitterness to the woman's cup of sorrow by telling her to send for Mr. Martland, as I understood he was the surgeon for the police-force? I think that the least that could be done was to go at once, and, if only by a word of sympathy, to calm her already over-wrought feelings. Such was what I did, and this was my only visit. As to the "digitalis and other powerful remedies," alas! there was no need for them; he was then sinking into a state of coma, and unable to swallow anything, from which he never rallied.

I am more than astonished that any gentleman cannot be a little more careful in publishing things hurtful to another's feelings, without mistaking names, addresses, and dates. *Semper fari quod verum est*, is a motto which your correspondent would do well to learn.

Trusting that you will give this as prominent a place in your paper as you did the other,

I am, Sir, yours, &c.,

Brook House, Church, May 30th, 1871. JOHN DRAPER.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

THE projected special hospital for the diseases of women has advanced several stages during the last few weeks. The subscribers have taken a house, No. 8, Crescent, at an estimated rental of £40 per annum, and have already decided who are to be on the consulting staff and who are to be the managing committee. A peculiar feature about the latter body is, that of eighteen members, nine are of the fair sex, a decided innovation in hospital management, the value of which remains to be seen. The consulting physicians are Dr. Bell Fletcher and Dr. Fleming, and the consulting surgeons Messrs. Berry and Furneaux Jordan, all men of eminence, whose names will give strength to the institution; but the real work of the hospital is to be done by four acting surgeons, who will be elected by a special committee to be appointed for the purpose, consisting of twenty governors selected by ballot from the general body of subscribers, together with the honorary and consulting staff. Numerous candidates are in the field, and amongst them many rising surgeons of note. Some of the rules of this institution are peculiar. One restricts the period of

service to fifteen years; another prevents anyone from holding office after he has reached the age of fifty-five. This law will, it is thought, exclude one gentleman of considerable standing in the profession, who has laboured long and actively for the promotion of this charity, and who had naturally expected to be one of the first of the newly created officers. Why the limit of fifty-five, rather than the usual one of sixty, should have been fixed upon as the fitting age for retirement it is difficult to understand.

THE LANCET adverted last week to the presentation of testimonials to Dr. Evans and Mr. Crompton, the late senior physician and senior surgeon of the General Hospital. Seldom in this testimonial-giving age have presentations taken place which are better merited, or in which the whole of the profession more fully concur. These gentlemen, although connected with the charity for many years, yet leave in the zenith of their fame, and without the least abatement of either their mental or physical vigour. May they long be spared to enjoy the ease and dignity which their labours and high professional reputation have so well earned for them.

Queen's College has obtained a valuable addition to its teaching staff in the appointment of Mr. Jolly, the junior surgeon of the General Hospital, and recently the popular house-surgeon of the Queen's Hospital, as assistant-demonstrator of anatomy.

The Medical Benevolent Society held its annual meeting last week, when the Treasurer, as usual, presented a very satisfactory balance-sheet, showing that, after paying all expenses, there was an available balance of £213, and that the invested funds of the Society amounted to upwards of £8000. It is gratifying to find that every claim for assistance has been met; that the grants to each applicant vary from £30 to £40 per annum, and that yet so handsome a balance remains at the expiration of the year. Dr. Bennett of Droitwich was elected President for the ensuing year, in succession to Mr. George Jones, to whom, and also to the indefatigable Secretary, Mr. Taylor, the best thanks of the Society were voted, and are justly due.

The clinical work at both the hospitals has been resumed for the summer session. A peculiar advantage is offered to the students of the Queen's Hospital by Dr. Heslop, who is now giving a special course on Diseases of Children, on Tuesdays and Thursdays. His great experience at the Children's Hospital, from which he not unfrequently draws his clinical cases, makes this course of great utility and interest to the students.

The Children's Hospital authorities yesterday decided on adding two extra acting physicians to their staff, to assist in the out-patient department of the institution, the work of which has increased of late considerably; and also on appointing a special ophthalmic surgeon. Dr. Mackey and Dr. Sawyer are spoken of as probable candidates for the former appointment; and Mr. Lloyd Owen and Mr. Arthur Bracey for the latter.

Our local medical literature has received an addition in the shape of a "Clinical Lecture on Ovariotomy," by Mr. Gamgee, founded on a successful case of that operation in a young single woman aged twenty-nine. The operator met with great difficulty in extirpating the tumour, owing to the numerous adhesions to the uterus and to the abdominal wall, which necessitated "an opening of nearly fifteen inches." Some of these fibrous adhesions to the spine "were so firm that it was impossible to separate them without the use of the knife, which could not be used in the deeper parts without risk of almost instant death." Mr. Gamgee "consequently made an incision into the fibrous capsule, close to and round the body of the tumour, then enucleated it, so as to leave behind the adhesions which sprang from the spine." The case terminated in the recovery of the patient, the callipers coming away on the sixteenth day, and she being able to return home on the thirtieth day after the operation. It is to be regretted that no exact pathological description is given of this growth, although Mr. Gamgee says it "was a very large tumour, divided into compartments," "that it weighed within a trifle of thirty-seven pounds," and that it contained several gallons of "bloody, odourless fluid," while he frankly admits that he "should not have commenced this operation if he had had a conception that the adhesions were so extensive, vascular, and firm."

Birmingham, May 31st, 1871.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

THE Manchester Medical Society held its concluding meeting for the session on the evening of Wednesday, the 3rd ult. There was a fair attendance of members, and the chair was occupied by Dr. Morgan, in the absence of Dr. Thorburn, the President. The first number on the programme was a brief verbal communication by Dr. Morgan, on the Treatment of Intestinal Flatulence, in which he advocated the extended adoption of the postural treatment. Mr. Whitehead then related the particulars of an interesting case of Removal of the Uterus and both Ovaries, which unfortunately terminated fatally. Dr. Samelson afterwards showed some specimens of Retinal Diseases, and a case of Double-contoured Optic Nerve-fibres. The paper of the evening was read by Dr. Simpson, the subject being "On the Endemic Hæmaturia of Egypt." The author had recently an opportunity of observing this affection in a very interesting case which was under his care in the Manchester Royal Infirmary. The patient was a young man who was recently in the employ of the Viceroy of Egypt, and who, while at Alexandria, began to suffer from this malady some months ago. He attributed his illness to his having drunk the water of the country unfiltered. Dr. Simpson entered at great length into the labours of Harley and others in this field, and also into the anatomy of the Bilharzia hæmatobia, the parasite which is associated with the hæmaturia in such cases. It is to be regretted that the case was so short a time under observation, the patient having decamped suddenly from the infirmary, owing, it is believed, to an urgent summons to return to Alexandria. Our Society is now larger and more vigorous than at any former period of its history; there are now over 130 members. The library maintains its standard of efficiency, there being upwards of 10,000 volumes on its shelves; and this stock is constantly being enriched by large additions of old and new books, which, with the varied stock of English and foreign periodicals, renders it one of the first in the country.

The principal epidemics prevailing in Manchester since our last communication have been whooping-cough, small-pox, measles, and scarlatina. Whooping-cough began to manifest itself about the beginning of the year, and for the first quarter was almost exclusively confined to the township of Manchester. According to the returns of the Sanitary Association, the number of cases in the public practice of Manchester and Salford varied between 30 during the week ending February 11th, 1871 (all of which occurred in Manchester), and 12 during the week ending April 29th, 1871. Small-pox has suffered a marked decrease especially in the township of Manchester, where, from 24 cases during the week ending April 29th, 1871, there was a fall to 9 in the week ending May 6th. It is interesting to note the undulatory character of its spread, as during the first two months of the year it was almost confined to the south and south-western division of the city, and then, for the next two months, Salford and the north portion suffered most. Measles has prevailed extensively, especially in Hulme; in one week, out of a total of 75 cases, 44 were returned from Hulme. The epidemic has been very fatal, owing chiefly to complications of a low broncho-pneumonic type. In the week ending March 25th, 24 deaths took place out of 94 cases of measles, the total number of deaths during the same week from all the other zymotic diseases only amounting to 20. The number of cases of scarlatina has fluctuated between 8 and 17 per week since the beginning of the year, the greatest number of deaths being 9 during the week ending January 21st, 1871.

Manchester, May 27th, 1871.

THE IRISH MEDICAL ASSOCIATION.—The annual meeting of the Irish Medical Association will take place on Monday next, June 5th, at the College of Surgeons, when important resolutions are expected to be brought before the members of the Association. The chair will be occupied by Dr. Darby, of Bray, the President. The members will dine together in the evening in the Examination-hall of the College of Surgeons, the Council of that body having consented to its taking place there.

Obituary.

DR. A. DUNLOP ANDERSON.

ONE by one the eminent physicians and surgeons of the last generation are dropping away. Among these, few could have been less easily spared than Dr. Alexander Dunlop Anderson, who died at his residence in St. Vincent-street, Glasgow, on the 13th ult., in his seventy-eighth year. He was respectably connected, being the son of Andrew Anderson, Esq., of Greenock, where he was born, and the nephew of the late Professor Anderson, founder of the Andersonian University in Glasgow. In that city he pursued his preliminary studies, and thereafter joined the medical classes in the University of Edinburgh. In 1816 he became a Member of the Royal College of Surgeons of England; in 1819 he graduated as Doctor of Medicine at the University of Edinburgh; in 1822 he was elected a Fellow of the Faculty of Physicians and Surgeons in Glasgow; and in 1844 he received the honorary Fellowship of the Royal College of Surgeons of England. Before becoming a member of the latter body, he had seen service as assistant-surgeon to the 49th Regiment in Canada. In 1820 he settled in Glasgow as a general practitioner, and in 1829 he married a daughter of Thomas McCall, Esq., of Craighead, Lanarkshire, who, with four sons and two daughters, still survives him. One of his sons, Dr. McCall Anderson, having also embraced the medical profession, is now Professor of the Practice of Physic in the Andersonian University, and is well known for his papers on Skin Diseases contributed to THE LANCET.

From the year of his settling in Glasgow Dr. Anderson's life was one continuous advance in public and professional esteem. He was elected in 1823 surgeon to the Royal Infirmary; and in 1837 he was appointed physician to the same institution, and also to the Deaf and Dumb Asylum. From time to time he contributed to the journals several papers of interest, among which may be mentioned one on "The Treatment of Burns by Cotton,"—a remedy which has since been employed for many external injuries. He also compiled a series of reports on surgical cases (1828–55)—a most useful collection. In 1852 he was elected President of the Faculty of Physicians and Surgeons, and held the office for three years, with such acceptance that, by request of the Faculty, he sat for the portrait which now hangs in their hall, as a mark of their gratitude for his exertions in their behalf. As might have been expected, he took a warm and effective part in promoting the interests of the University which bears his uncle's name; while every institution dedicated to the furtherance of liberality and enlightenment enjoyed a more than ordinary share of his encouragement and support. As a practitioner his accomplishments, his skill, his experience, and his geniality secured him a distinguished *clientèle*; while his integrity of character and his polished suavity of demeanour did much to maintain the dignity of his profession. He was in religion "a moderate Presbyterian," and in the domestic and social circle his kindness of heart and soundness of head made him equally beloved and respected.

FRANCOIS ACHILLE LONGET.

THE venerable Archbishop of Paris and his sixty-three fellow hostages are not the only eminent victims to the wanton vindictiveness of the Commune. Longet, the distinguished physician and prælector, died at Bordeaux of a broken heart, after finding the city where he had spent the greater part of his laborious and useful life abandoned to the tender mercies of the Revolution.

He was born in 1811, at Saint Germain en Laye. From his boyhood he was passionately fond of scientific investigations. Anatomy in particular was the subject in which he was ambitious to excel. Devoted to it as a student in Paris, he made it the business of his life in 1838. He co-operated in 1840 with Matteucci in a series of researches on the irritability of the nervous system, and arrived at the conclusion that irritability is a property inherent in the living tissue—the electric current, for example, being only a special excitant, without the power of replacing what it has exhausted. In 1843 he gave to the world his well-known "Traité d'Anatomie et de Physiologie du Système Nerveux de l'Homme et des Animaux Vertèbres,"—a work of which the final fasciculus appeared in 1846. In the following year he published a demonstration of the doctrine that the motor power of respiration resides in the intermediary faisceau of the rachidian bulb; and also a series of experiments on the effects of sulphuric ether on the nervous system. In 1850 he laid the scientific world under heavy obligations by his "Traité Complet de Physiologie," which was not finished till 1855. In this excellent work he confirms the discovery of Sir Charles Bell, though according to Brown-Séquard, his observations often prove too much. In 1852 he investigated, in conjunction with Masson, the physiology of the voice, and the production of sound as modified by various wind instruments.

He since gained the Montyon Prize for Physiology at the Academy of Sciences, and was unanimously elected a Member of the Academy of Medicine in 1844. In March, 1856, he was elected a member of the medical section of the Institute, for which he had more than once been a candidate, and was created an officer of the Legion of Honour and one of the consulting physicians to the ex-Emperor Napoleon. He was corresponding member of many academies and learned societies, and was a frequent contributor to scientific periodicals, such as the *Archives Générales de Médecine*, the *Gazette Médicale*, the *Annales des Sciences Naturelles*, the *Annales Médico-Psychologiques*, and others. His exposition, whether by tongue or pen, was marked by great clearness and logical method, and he delighted in tracing functional phenomena to the operation of organic law, from the lowest to the highest members of the animated kingdom.

JAMES GRAHAM HILDIGE, F.R.C.S.I., M.R.I.A.

THIS distinguished member of our profession died at his residence in Upper Merrion-street, Dublin, after a sudden illness, on Sunday, May 14th. Mr. Hildige practised very successfully as an ophthalmic and aural surgeon, having studied those branches of the profession in the Vienna and Berlin schools; and, if he had not suffered from delicate health, would have been placed foremost in the rank of ophthalmic surgeons in the city where he resided. He was a member of the Surgical, Zoological, and Royal Dublin Societies; also of the Soc. Germ. Phys. Paris, Therap. Soc. Berlin, and corresponding member of the Imp. Soc. Phys. Vienna. Mr. Hildige was surgeon to the National Eye and Ear Hospital, Dublin, which institution he was principally instrumental in supporting. He was most charitable, giving freely to every society or institution which was deserving of support; and was much respected for his kindness of manner and amiable disposition by his numerous friends who now mourn his untimely death. He contributed several valuable monographs on ophthalmic and aural surgery to THE LANCET, *Medical Gazette*, *Dublin Hospitals Gazette*, *Dublin Quarterly Journal*, &c.; and a paper on Yellow Fever, which was read before the Imperial Society of Physicians of Vienna, and published in their Transactions. Mr. Hildige was also the author of "Medical Sketches in Austria, Prussia, and Italy, with remarks on the Roman Campagna."

WILLIAM T. LOWE, F.R.C.S.E., L.S.A.

THE suburb of Highbury has lost one of its old and honourable practitioners by the death of Mr. Lowe, after a long and somewhat obscure illness. Mr. Lowe was born at Hackney in July, 1808. He commenced his medical career at Stamford, Lincolnshire, with Messrs. Burdett and Demervilleux. Afterwards he was assistant to a surgeon at Hawkhurst, Kent. He studied at Guy's; and took his first qualification—that of an apothecary—in 1829. Mr. Lowe commenced practice in Aldersgate-street; and, following the example of many of his patients, removed to Canonbury, where he lived till about two years ago. He then married and removed to Highbury-hill. His medical views were characterised by common sense and regard for the teachings of experience. The great features of his professional character were honourable and kindly bearing towards his brethren, and self-sacrifice and unwearied attention to his patients. He was the friendly adviser of many who could

not recompense him, but who greatly loved and respected him. Mr. Lowe's illness began in the cold weather of December last, and presented at first the symptoms of a severe bronchitis, complicated with emphysema and a weak heart. After a time diagnosis became a little more difficult, and the opinion of his medical friends was somewhat divided. It is only due to Dr. Risdon Bennett to say that he suggested the existence of cancerous disease of the chest. A post-mortem was made, and revealed a mass of medullary sarcoma filling the anterior mediastinum, surrounding and compressing the trachea and bronchi, and producing collapse of the lung. Soft cancer was also found in the liver. It is remarkable that the spleen was atrophied to the size of a very diminutive body. Mr. Lowe was much esteemed by his professional brethren. During his long illness he was kindly attended by several friends, especially by Dr. Bennett, Dr. Cotton, Mr. Harston, and Messrs. Tait and Hamilton.

DR. PHELAN,

LATE POOR-LAW INSPECTOR, IRELAND.

ON Saturday last this gentleman died painlessly at the advanced age of eighty-six. In early life Dr. Phelan was an unknown practitioner in a small provincial town. Feeling the imperfections of the system of dispensaries then existing, he made at his own cost a tour of inspection, and subsequently published a work entitled the "Medical Charities of Ireland," to which was mainly owing the creation of the existing Poor-law dispensaries. To Dr. Phelan was due likewise the credit of establishing Poor-law fever hospitals, which supplied a crying want, and still continue to give relief to thousands of patients of the humbler classes. He also left his mark on the lying-in hospitals. As a Poor-law inspector Dr. Phelan was a most zealous servant of the public, and, in superintending the system he had himself proposed, he evinced the greatest anxiety to make it perfect. Dr. Phelan was a true Irishman, and strongly in favour of a federated government. He was buried in Glasnevin cemetery.

JOHN FIRTH, M.R.C.S.

THE funeral of this gentleman, whose lamentable death we have already recorded, took place on the 10th ult. He was followed to the grave by a large number of the most respectable citizens of Macclesfield and its vicinity, as a mark of the esteem in which he was held. Mr. Firth studied at University College, where he formed his life-long friendship with Dr. Lankester, the present coroner for Middlesex. He took his diploma in 1836, and the same year became Licentiate of the Apothecaries' Company. Before settling in Macclesfield he assisted the late Mr. Bullock, of Congleton, whose skill and experience he always referred to as being of the greatest service to him. In Macclesfield he soon made himself known so favourably that his time was fully occupied till he had to take into partnership Mr. B. Fernie, in conjunction with whom his practice became nearly doubled. In 1851-2 he acted as chief magistrate of the borough, and was for many years an alderman of the Corporation. To the Dispensary he was one of the honorary consulting surgeons, and long held the appointment of medical officer for the Rainbow and Sutton district of the Macclesfield Union, offices which are left vacant by his death.

FREDERICK WILLIAM RICHARDS, M.B., F.R.C.S.,

OF WINCHESTER.

THOSE who entered at St. Bartholomew's in 1861 will well remember Richards, the brightest and best man of his year. Educated at Merchant Taylor's School, and subsequently a pupil of Dr. Butler, of Winchester, and having already passed the Matriculation and Preliminary Scientific examinations at the University of London, taking at the former honours in Mathematics, Chemistry, and Botany, he came well prepared to the hospital. Clear-headed, observant, and diligent, working to good purpose, with polished manner, with fluent speech, and with ready wit, he became well known. In his first year he obtained the first prize for General Proficiency and the first for Practical Anatomy; and in the next the first scholarship in Anatomy, Physiology, and Chemistry, passing the first M.B. examination with honours in Physiology and Materia Medica. Having qualified at College and Hall, he held the post of obstetric assistant, and subsequently obtained the licence of the College of Physicians, graduating M.B. in 1865. In the following year he entered in partnership, at Winchester, with his old master, Dr. Butler, and if ever a successful professional career might be expected from intrinsic worth, and qualifications both natural and acquired, such was to be anticipated would be that of Mr. Richards. But his earthly career was to be short, and at the age of twenty-nine he has passed to his rest. Mr. Richards became a Fellow of the Royal College of Surgeons by examination in 1867, and was assistant-physician to the Hants County Hospital. He died on the 23rd of February, and has left a widow and two children.

THE UNITED HOSPITALS ATHLETIC SPORTS.

THE fifth annual meeting of this Club took place on the 1st inst., at the Lillie Bridge ground, at West Brompton, and, in spite of the threatening aspect of the weather, attracted a very numerous gathering of interested spectators. The principal events were—the one mile race for a challenge cup presented by Guy's Hospital, which was won for the second consecutive time by Mr. A. B. Kelly, of University College Hospital; the half-mile race for a silver cup, presented by St. Bartholomew's Hospital, won by Mr. A. G. Goodeve, of the same hospital; the two miles race, for a cup presented by Mr. Le Gros Clark, the President of the Club, which was also carried off by Mr. Goodeve; and the strangers' race of one mile, which was won by Mr. W. C. Collins, of the London Athletic Club. On the whole, however, the honours of the day were mostly gained by Guy's and King's College Hospitals, each of which carried off an equal number of first prizes, while the former gained the greater number of second prizes. The distribution was made by Mrs. Sydney Jones. One of the principal features of this part of the proceedings was the enthusiasm with which the Guy's men hailed their champions, conspicuous among whom was Mr. G. Power, who carried off three prizes.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 25th:—

Burton, Edward Theodore, Spring-hill, Birmingham.
Cogman, Charles, New North-road.
Johnson, Charles Hargitt, Royal Infirmary, Hull.
Lee, Alfred Robert, Great College-street, Camden-town.
Monks, Frederick Aubin, Darnley-road, Hackney.
Palmer, Henry Drake, Olney, Bucks.
Wall, Abiathar, Bishop's-road, Bayswater.

As Assistants in Compounding and Dispensing Medicines:—

Carr, George, Sheffield.
Clarke, George Ernest, Norwich.
Smyth, Arthur William, Aldborough.

The following gentlemen also on the same day passed their first professional examination:—

Hosking, Ethelbert, King's College.
Laver, Arther Henry, St. Thomas's Hospital.

THE POPLAR HOSPITAL.—The sixteenth annual dinner in connexion with this hospital is announced for the 9th inst., at the Brunswick Hotel, Blackwall.

ST. BARTHOLOMEW'S HOSPITAL ATHLETIC SPORTS.—The meeting of this club was held at the Lillie Bridge ground on April 29th. The prizes were distributed to the successful competitors by Mrs. Foster White.

THE usual summonses for the election of Members of the Council of the Royal College of Surgeons of England are now in the course of delivery to the Fellows of the College. The election is fixed for Thursday, the 6th prox., at 2 P.M.

DR. BROWNE, R.N., ex-Mayor of Belfast, has had the Commission of the Peace for that borough conferred upon him.—Mr. John Harkin, M.R.C.S.E., has been appointed to the Commission of the Peace for the borough of Londonderry.

Medical Appointments.

BEATTIE, G. W., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Glenmuick, Aberdeenshire, vice Hotchkin Haynes, M.D., deceased.

DEMPSEY, Mr. M. T., has been appointed Junior Resident Medical Officer to the Great Northern Hospital.

DORWARD, A. W., L.F.P. & S. Glas., has been appointed Medical Officer for the Upper Strathearn Combination Poor-house, vice Alex. Cochran, M.D., L.F.P. & S. Glas., deceased.

EATON, P., M.R.C.S.E., has been appointed Registrar of Births &c. for the Leadenham District of the Sleaford Union, Lincolnshire.

EWEN, A. B., M.R.C.S.E., Medical Officer for the Tyd St. Giles District of the Wisbeach Union, has been appointed Public Vaccinator.

GOWAN, C., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Worcester County and City Lunatic Asylum, Powick, vice R. W. Ceely, M.R.C.S.E., resigned.

JONES, E., M.D., M.R.C.S.E., has been elected Medical Officer for the Dolgelly District of the Dolgelly Union, vice Evans, deceased.

KING, Dr. G., has been appointed Director of the Botanic Gardens, Calcutta, vice Dr. T. Anderson, deceased.

LAWRENCE, F. G., M.R.C.S.E., has been appointed Medical Officer for District No. 7 of the Thingoe Union, Suffolk, vice J. Henry, M.D., deceased.

LEAPINGWELL, Mr. A. H., L.S.A., &c. (of the London Hospital), has been appointed House-Surgeon to the West Ham, Stratford, and South Essex Dispensary, vice E. W. Parker, M.R.C.S.E.

PARKS, E., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Ullid Dispensary District of the Waterford Union, vice J. D. Kelly, L.R.C.P.Ed., L.R.C.S.I., resigned.

RADLEY, W. H., M.R.C.S.E., has been elected Medical Officer to the Herbert Ingram Lodge of Odd Fellows, Boston.

RIDLEY, J., L.R.C.P.Ed., has been appointed Medical Officer to the Gateshead Small-pox Infirmary.

ROWLAND, G., M.R.C.S.E., has been appointed House-Surgeon to St. Mark's Hospital for Fistula, &c., vice D. H. Goodsall, L.R.C.P.I., M.R.C.S.E., appointed Hon. Assistant-Surgeon.

RUTHERFORD, T., M.B., C.M., has been appointed a Resident Physician at the Royal Infirmary, Edinburgh.

SELLTON, J. M., M.B., L.R.C.S.I., has been appointed Assistant Medical Officer to the Metropolitan Asylum, Leavesden, Herts, vice A. Strange, M.D., L.R.C.S.Ed., appointed to the Middlesex Lunatic Asylum, Colney-Hatch.

SMITH, Dr. H. L., has been appointed Medical Attendant *pro tem.* to the Royal Irish Constabulary at Ballacolla, Durrow, and Cullohill, Queen's County, vice W. J. Croly, L.R.C.P.Ed., L.F.P. & S. Glas., deceased.

STORY, W., L.K.Q.C.P.I., F.R.C.S.E., has been appointed Medical Officer for the New Hampton District of the Kingston Union.

THOMPSON, R. E, M.D., F.R.C.P.L., has been appointed a Visiting Physician to the Seamen's Hospital (late "Dreadnought"), Greenwich, vice J. H. Jackson, M.D., F.R.C.P.L., resigned.

VINCENT, O., M.R.C.S.E., has been appointed a Surgeon to the National Orthopædic Hospital, Great Portland-street, vice Henry Dick, M.D., M.R.C.S.E., resigned.

WALSH, P. C., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Gurteen Dispensary District of the Boyle Union, vice S. MacDermott, L.K.Q.C.P.I., L.R.C.S.I., appointed to the Ballaghadereen Dispensary District of the Castlerea Union.

WAY, E. W., L.R.C.P.L., M.R.C.S.E., has been appointed a Resident Physician at the Royal Infirmary, Edinburgh.

Births, Marriages, and Deaths.

BIRTHS.

CRIBB.—On the 26th ult., at Compton-terrace, Highbury, the wife of A. J. Cribb, M.D., of a son.

LLOYD.—On the 27th ult., at Finsbury-circus, the wife of T. P. Lloyd, M.R.C.S.E., of a son.

MORRIS.—On the 30th ult., at Somers-place, Hyde-park-square, the wife of J. Morris, M.D., of a daughter.

RICKARD.—On the 24th of April, at Masulipatam, India, the wife of F. M. Rickard, Esq., Assistant-Surgeon of H.M.'s Indian Army, of a daughter.

STEPHENS.—On the 20th ult., at St. Austell, Cornwall, the wife of R. F. Stephens, M.R.C.S.E., prematurely, of a son.

WILLY.—On the 24th ult., at Hawley-square, Margate, the wife of Ambrose Willy, Esq., of a daughter.

MARRIAGES.

MILNE—FRISKIN.—On the 24th ult., at Glasgow, Thomas Milne, M.D., R.N., to Alice Davidson, daughter of the late George Friskin, Esq.

WATCHORN—JARDINE.—On the 13th ult., at Lenton, Isaac Watchorn, M.D., of Raleigh House, Nottingham, to Mary Elizabeth, daughter of John Jardine, Esq.

DEATHS.

FIELDING.—On the 24th ult., G. H. Fielding, M.D., of Grove House, Tonbridge, aged 69.

HORE.—On the 24th ult., H. A. Hore, M.R.C.S.E., of Park-street, Bristol, aged 48.

JONES.—On the 22nd ult., at The Lodge, Llanbedr, near Conway, Dr. W. J. Jones.

MACMILLAN.—On the 26th ult., A. Macmillan, M.D., of Dailly, Ayrshire, aged 28.

TRAILL.—At Hill-terrace, Arbroath, W. Traill, M.D., 91st Highlanders, aged 32.

WILLIAMS.—On the 24th ult., at Imperial-square, Cheltenham, D. Williams, M.D., of Disquilfa, Carmarthenshire, and of Curborough, Lichfield, Hon. Physician to the North Dispensary, Liverpool, for forty-six years, aged 83.

REPORT OF THE SELECT COMMITTEE ON THE VACCINATION ACT (1867).

THE Select Committee appointed to inquire into the operation of the Vaccination Act (1867), and to report whether such Act should be amended, have considered the matter referred to them, and have agreed on the following Report:—

Eight sittings of your Committee have been occupied in hearing the evidence of persons who assert that vaccination is useless and injurious, and who therefore object to its enforcement and encouragement by the law.

After careful consideration of this evidence, and of medical and other evidence given in reply, your Committee agree with the general opinion,—

That the cow-pox affords, if not an absolute, yet a very great protection against an attack of small-pox, and an almost absolute protection against death from that disease.

That if the operation be performed with due regard to the health of the person vaccinated, and with proper precautions in obtaining and using the vaccine lymph, there need be no apprehension that vaccination will injure health or communicate any disease.

That small-pox unchecked by vaccination is one of the most terrible and destructive of diseases, as regards the danger of infection, the proportion of deaths among those attacked, and the permanent injury to the survivors; and therefore

That it is the duty of the State to endeavour to secure the careful vaccination of the whole population.

Your Committee have no doubt that the almost universal opinion of medical science and authority is in accordance with Dr. Gull when he states that "vaccination is as protective against small-pox as small-pox itself"; with Dr. West, when he gives as the result of his experience, as Physician to the Children's Hospital in Great Ormond-street, and as having had charge of between 50,000 and 60,000 children since 1835, that "he does not think that vaccination does produce disease"; and with Sir William Jenner, when he says, "I should think myself wicked, and really guilty of a crime, if I did not recommend every parent to have his child vaccinated early in life."

Against this evidence in favour of vaccination, the prevalence of the present small-pox epidemic, especially in the metropolis, has been alleged.

Your Committee, however, believe that, on the one hand, if vaccination had not been general, this epidemic might have become a pestilence as destructive as small-pox has often been, where the population has been unprotected; and that, on the other hand, if this preventive had been universal the epidemic could not have approached its present extent.

Vaccination is generally believed to require repetition about the age of puberty; but as it is almost impossible to enforce revaccination, it is most important that all children should be vaccinated both for their own sakes and that of the community, to prevent their catching and spreading disease.

There are three classes of children who, being, by the conduct of their parents, left unvaccinated, are themselves in great danger, and may become centres of infection to others.

1. There are the children who are utterly neglected by their parents.
2. There is the much larger number of children of parents who, while not denying their duty or desiring to disregard it, postpone its fulfilment, and who from carelessness or forgetfulness delay to protect their children until driven to the vaccine station by the panic fear of an epidemic.
3. There are the children of those parents, very few in proportion to the whole population, who assert that vaccination will do harm.

With regard to the first and second of these classes, there can hardly be any objection to the principle of a compulsory law, though there may be practical difficulties in its application; but, in dealing with the third class, it becomes necessary to weigh the claims of the parent to control, as he thinks fit, the medical treatment of an infant child, as against the duty of the State to protect the health of the community, and to save the child itself from a dreadful disease.

While weighing these conflicting claims, your Committee have had to consider the effect of the change in the law introduced by the Act of 1867, which, contrary to the provisions of the previous English or present Irish Acts, makes the parent liable to repeated convictions and penalties for not allowing his child to be vaccinated.

There appear to have been several cases of infliction of more than one fine or imprisonment in regard to the same child; and your Committee, though by no means admitting the right of the parent to expose his child or his neighbours to the risk of small-pox, must express great doubt whether the object of the law is gained by thus continuing a long contest with the convictions of the parent.

The public opinion of the neighbourhood may sympathise with a person thus prosecuted, and may in consequence be excited against the law; and after all, though the parent be fined or imprisoned, the child may remain unvaccinated. In such a case the law can only triumph by the forcible vaccination of the child.

In enactments of this nature, when the State, in attempting to fulfil the duty, finds it necessary to disregard the wish of the parent, it is most important to secure the support of public opinion; and as your Committee cannot recommend that a policeman should be empowered to take a baby from its mother to the vaccine station, a measure which could only be justified by an extreme necessity, they would recommend that whenever in any case two penalties, or one full penalty, have been imposed upon a parent, the magistrate should not impose any further penalty in respect of the same child.

It has been suggested that the parent's declaration of belief that vaccination is injurious might be pleaded against any penalty; but your Committee believe that if the law were thus changed it would become a dead letter. Prosecutions would soon cease, and the children of the many apathetic and neglectful parents would be left unvaccinated, as well as the children of the few opponents of vaccination.

Your Committee are glad to find that wherever the guardians endeavour to carry out the law, it is very generally and indeed almost universally enforced; but there are some amendments by which they think the Act referred to them might be made more efficient.

By Sec. 28, the guardians of any parish may appoint an officer to promote vaccination, and to prosecute persons offending against the Act; and it appears that in the majority of the unions such officers have been appointed,

and that the law in consequence is more efficiently administered. Your Committee recommend that this appointment be made obligatory on the guardians.

They are also strongly of opinion that the registration of vaccination should be simplified; that the vaccination officer should keep the vaccination register, and therefore that the certificates under the Act should be sent to him; and also that the registrar of the district should forward to him a monthly return of births and of the infants that have died.

The suggestion has been made that a considerable proportion of the expenses of working the Act should be contributed from moneys to be voted by Parliament. Your Committee believe that efficient working would be promoted by such contribution. Without doubt local agency must be relied on for administration; but central inspection and control are also needed, and would be much more powerful if a payment towards the expenses could be withdrawn in cases of maladministration.

Your Committee cannot conclude without expressing their opinion on two questions beyond the scope of the Act referred to them, though not of the subject of their inquiry.

A compulsory registration of births such as exists in Scotland and Ireland is needed, as the non-registered children are those most likely to escape the notice of the vaccinators.

There also appear to be disadvantages in the present division of sanitary responsibility between the departments of the Government. The Medical Department of the Privy Council inspects the vaccination of every union, and advises the Poor-law Board in regard to the arrangements proposed by guardians, which arrangements are then approved or disapproved by the Poor-law Board.

This division of duties cannot but tend to delay and to non-efficiency; and though your Committee do not pretend to decide to which of these departments the duty of administering the law should be entrusted, they do not think such duty should be shared between two offices, and they believe that one and the same department should advise, inspect, approve, and control.

23rd May, 1871.

Medical Diary of the Week.

Monday, June 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. General Monthly Meeting.
ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Prof. John Birkett, "On the Nature and Treatment of New Growths."

Tuesday, June 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Haughton: "Least Action in Nature."

Wednesday, June 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Prof. John Birkett, "On the Nature and Treatment of New Growths."
ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. Guy, "On War in its Sanitary Aspects, with special reference to the period from 1793 to 1815."
OBSTETRICAL SOCIETY OF LONDON.—7½ P.M. Council Meeting.——8 P.M. Dr. Meadows, "On Pelvic Hæmatocele" (adjourned discussion). — Dr. Tilt, "On the Diagnosis of the least known varieties of Uterine Inflammation."—And other papers.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M.

Thursday, June 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operation, 3 P.M. Lithotrity: by Mr. Teevan.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Sound."

Friday, June 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. John Birkett, "On the Nature and Treatment of New Growths."
ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. Guy, "On War in its Sanitary Aspects, with special reference to the period from 1793 to 1815."
QUEKETT MICROSCOPICAL CLUB.—8 P.M.
ROYAL INSTITUTION.—9 P.M. Prof. Tyndall, "On Dust and Smoke."

Saturday, June 10.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 P.M. Mr. Lockyer, "On Astronomy."

Notes, Short Comments, and Answers to Correspondents.

ARMY MEDICAL DEPARTMENT.

WE have received a copy of a printed document that is at present being circulated regarding the financial position of the Government in relation to the army medical service. The writer institutes a comparison between the present cost of the department and that which will arise in May, 1876. It is shown that on the present system, and at the present rate of promotion, the position of the component members of the department must, at the expiration of five years, be so altered by length of service as to cause the gradually increasing outlay to have then reached an additional amount of nearly £20,000 per annum. Whereas there are now 101 surgeon-majors, at an annual cost of £43,329, there will in 1876 be 212 officers of this rank, with an annual outlay of £92,856; and while there is only one assistant-surgeon with over fifteen years' service now, with a pay of £319, there will then be 117 officers of the same rank with that service, costing £37,986. Out of 948 medical officers, from the rank of surgeon-major to that of assistant-surgeon inclusive, no less than 610 are assistant-surgeons. On comparing the existing cost with that of five years hence, there is an excess of £19,597 on the side of the latter. The author goes on to propound a scheme for optional retirement of medical officers at twenty years, with a pay of £1 per diem, conditional on enrolment, to the age of fifty-five years, in the Medical Reserve—a scheme which he thinks would be beneficial alike to the State and the service. Very careful scrutiny of the figures and calculations would be required in order to verify the results arrived at. The diminution caused by retirement and deaths does not seem to have received due consideration, and, whatever may be the case in 1876, the numbers of one year can scarcely afford any index of the average rate of promotion. A War-Office Committee in 1863, presided over by Lord Churston, recommended, we believe, that the militia medical service should be formed out of the body of retired army medical officers. The disproportion between the members in the subordinate and the upper ranks of the army medical service must strike anyone as remarkable. If something be not devised to accelerate the rate of promotion, the authorities can scarcely expect to rule over a contented body of officers, or to obtain fresh supplies. Spite of what has been advanced to the contrary, we hold that the term of service in the inspectorial ranks will have to be limited. Whatever exists in the department in the way of prizes falls almost exclusively to a very few inspectors, which is scarcely fair; and it appears to us, also, that it is by no means certain that the State would financially suffer by the retirement of the seniors after fixed periods of service. An earlier retirement, the provision of posts for medical officers in a Medical Reserve, and a limited period of service for the higher ranks, apparently offer the only methods by which the stagnation in the subordinate ranks can be overcome.

Wisbeach.—We cannot advise in this matter, beyond suggesting that our correspondent should consult a respectable medical man in his own neighbourhood. We do not forward private answers to correspondents.

OUT-PATIENT HOSPITAL REFORM.

To the Editor of THE LANCET.

SIR,—Since last acknowledging receipt of donations for the above object, I have received the following sums:—

Mr. Bowman	...	...	£1	0	0	Dr. Dickinson	...	...	£1	1	0
Mr. Gant	...	...	0	5	0	Dr. Theodore Williams	...		0	5	0
Dr. Douglas Powell	...	...	0	5	0	Dr. Dobell	...	...	0	10	0
Dr. Stewart	...	...	0	10	6	Mr. F. Churchill	...	...	0	2	6
Dr. Ford Anderson	...	...	0	10	0	Dr. Fuller	...	...	0	10	0
Mr. J. Hutchinson	...	...	1	1	0	Dr. Hickman	...	...	0	5	0
Mr. Adams	...	...	1	1	0	Dr. Dudley	...	...	0	5	0
Mr. Arnott	...	...	0	5	0	Mr. Owen	...	...	0	5	0
Mr. T. Smith	...	...	1	1	0	Mr. Henry Smith	...	...	1	1	0
Dr. Cholmonley	...	...	0	10	0	Mr. Rogers	...	...	0	4	0
Dr. Burrows	...	...	1	0	0	Mr. Jabez Hogg	...	...	0	10	0
Dr. Day	...	...	2	2	0	Mr. Brownfield	...	...	1	1	0
Dr. Tilbury Fox	...	...	1	1	0	Mr. Atkinson	...	...	0	5	0
Mr. Critchett	...	...	1	0	0	Mr. Clifton	...	...	0	10	0
Mr. Power	...	...	0	5	0	Per Dr. H. Smith	...		0	5	0
Dr. Glover	...	...	0	5	0	Dr. W. Ogle	...	...	1	0	0
Dr. Anstie	...	...	0	5	0	Dr. Coates	...	...	1	1	0
Dr. Thorowgood	...	...	0	5	0	Dr. Langston	...	...	0	5	0
Mr. Middlemist	...	...	0	5	0	Mr. Barrett	...	...	0	10	0
Dr. Burdon Sanderson	...		0	10	0	Mr. Lord	...	...	0	10	6
Dr. Buzzard	...	...	0	10	0	Mr. George Wight	...	...	0	5	0
Mr. Weeden Cooke	...	...	0	5	0	Mr. James Wookey	...	...	0	10	6
Dr. Bäumler	...	...	0	2	0	Stamps &c. for Reports	...		3	15	0

Up to the present time the total receipts have been £48 0s. 6d., and the total payments £40 4s. 10d., to which have to be added liabilities to the amount of about £3, leaving a present deficit of £4 4s. 4d. It is obvious that the last appointed Committee cannot undertake the responsible and expensive work entrusted to it on such terms; at all events I certainly must decline the office of cashier, unless those interested in the work will come forward to help it. This is the last appeal with which I shall trouble you or your readers, unless a liberal response is made; and I must say I think it will be a grievous shame, as well as a great mistake, if the labour bestowed by the late Committees is thus to come to nought. The responsibility of such a failure will, at all events, not rest with them nor with

Your obedient servant,

George-street, Hanover-square, May, 1871. ALFRED MEADOWS.

BUSINESS AND THE BOTTLE.

IN a very sensible and well-written article, the *City Press* comments in terms of just condemnation upon one peculiar practice of "alcoholism," which it believes is becoming more and more associated with the habits of business men in the City—viz., the appeal to the spirit or the wine bottle to assist in the transaction of business. Buyers, we are told, adjourn immediately after having inspected goods, and when experiencing the first genial glow of the alcoholic beverage complete their business; whilst all classes of business men place themselves under the dominion of the bottle to an extent which must be prejudicial to health, and to the smooth and safe working of the machinery on which trade depends for sound results. At the same time the luncheon-bars of the day favour copious drinking as much as hasty feeding. Fortunes are sometimes made rapidly, and the knowledge of the fact stimulates the excitement, the overreaching, and the avarice of the ambitious. Express trains, telegraphs, gas-lights, and ready reckoners are at hand to aid in the fight against great odds; and alcohol greases all wheels, fills up all ruts, and smooths over all rough ways for a time, and the result is a rush in which a few of the stronger win, whilst a host fall out and are never heard of more. There is no doubt much that is true in the picture that our contemporary draws, and more in the assertion it makes, that in the long run, and in the mass of cases, drinking agrees badly with business, and that those who are likeliest to amass fortunes are such as keep their heads cool, their feet warm, and their digestive organs in a state of perfect sanity. We leave to others to decide, however, whether the growing fashion of tippling in business does not tend much more directly to the Bankruptcy Court than to the Temple of Fortune; but we are sure that it is entirely antagonistic to that "mens sana in corpore sano" which is necessary to the proper clear-headedness and energy of the honest man of business.

Bradford Infirmary.—We shall be glad to have the cases referred to, provided our correspondent will be good enough to make them as condensed as practicable.

ISOLATION OF SMALL-POX PATIENTS.

To the Editor of THE LANCET.

SIR,—Your reporter on the Small-pox Epidemic has been misinformed as to the circumstances under which I declined the responsibility of removing a case to the Small-pox Hospital. They are as follows:—

On the 15th instant I was, owing to the illness of the parish doctor, asked by the relieving officer to see to the removal of a pauper to Hampstead. On examination, the child, aged four and a half years, proved to be in the tenth day of confluent and unprotected small-pox. Secondary fever had set in, and I was unable to certify that it was in a fit state to be removed as far as Hampstead. It was lodged in two rooms on the second floor of a thirteen-roomed house in one of our most open and airy courts, and was well nursed by its mother and aunt. The rest of the family—viz., the husband and three children—were well accommodated on the basement floor, so that I could not, had the child been in a state, in my opinion, to bear removal, have testified that the patient was, in the words of the Act, "without proper lodging or accommodation, or lodged in a room occupied by more than one family."

The sufficiency of this condition must, of course, be decided by the magistrate on evidence. I regret, therefore, that in this case he granted an order on an *ex-parte* statement, without the parents having had an opportunity of being heard. It would have been of interest to have heard what degree of isolation would have satisfied the intentions of the Legislature.

In cases of scarlet fever I have had experience that effectual isolation can be secured in one room of a house containing several unprotected children by the use of carbolic acid in a careful manner, where, as in this case, you can have a person absolutely restricted to attendance on the patient only.

I am a staunch advocate of isolation as a preventive, and very much regret to perceive that its efficiency during this epidemic has been questioned, owing to the fact that many patients have been discharged from our large pauper hospitals before they were free from infection, and without being submitted to a process of thorough disinfection. This is probably the result of the inadequacy of the medical staff of these large establishments.

Yours, &c.,
SEPTIMUS GIBBON,
May, 1871. Medical Officer of Health for Holborn.

DISEASES OF THE EAR IN THE WEST INDIES.

THE prevalence of inflammatory diseases of the external meatus and tympanum in the West Indies has been made the subject of remark in previous volumes of the Army Medical Blue-book, and we find in that just issued that diseases of the ear were very common among the troops at Barbadoes. Of 15 cases of inflammation of the membrane of the tympanum, 13 were reported in the 47th Regiment at that station; but no reason was assigned for their occurrence by the medical officers.

Mr. Edgcumbe Cornish.—It is really impossible for us to forward private answers. The usual custom is for the new-comer to call; but we should be glad to see the resident practitioners visit the new-comer.

C. A. E.—Published at Brighton.

A Medical Officer of a Workhouse.—Other coroners hold a different opinion, and allow fees to the medical officers of workhouses for attending inquests.

COD-LIVER OIL JELLY.

To the Editor of THE LANCET.

SIR,—Dr. Attfield has drawn my attention to a deficiency in the percentage of oil in my cod-liver oil jelly. In justice to Dr. Attfield, and also in good faith with the profession, from whom I have received a very liberal patronage, I beg to state that the deficiency has arisen through a miscalculation on my part; but the error has already been corrected.

Yours faithfully,
Liverpool, May 23rd, 1871. JAMES AGNEW.

TEMPERATURE OF THE BODY IN RELATION TO CLIMATE.

DR. RATTRAY, R.N., in some observations on the pulse, respiration, and temperature of sailors at home and in the tropics, published in the "Proceedings of the Royal Society" for 1870, fixes the temperature of the body in England at 98·3°; in the tropics (average of 51 days), at 98·06°; and at the equator, with a temperature of 84° (average of seven days), 99·02°. The highest temperature in the tropics was at 3 P.M. The temperature was 99½° and 100° in 22 per cent. of the observations. There is a gradual, though trivial, increase in the temperature of the body in proportion to the increase in the external air. Dr. Parkes states that the results of the observations are in accordance with those of some experiments made by Dr. Becher, Staff Surgeon, Army, which are not yet published, but which show that a rise of external temperature of 1° raises the body heat 1-20th of a degree Fahrenheit.

ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editor of THE LANCET.

SIR,—Here a little and there a little, I am glad to gather that some of our cloth are being called to a lively interest in the cause of the poor widow and fatherless, who may hereafter seek the great blessing contemplated by the noble promoter of the above institution.

A letter in your number of 6th May from Mr. Felce has, indeed, given me much satisfaction, and I scarcely know if I can add one word to point out more fully and feelingly than he has done to develop the evil. Years ago I wrote of the many weeping mothers who yearly leave the office of election with full hearts and actual sacrifice of hard-earned or may be charity money. I have received some few letters on the subject since I troubled you in April last, and, had as I always believed the system, I had no conception of the unprincipled and mercenary practices adopted on the days of election; yet I am constrained to believe in it from having been recently in London, and had these sad facts confirmed *oculis usus*, as it were. I must agree with Mr. Felce as to the objections of the Council as to the "curtailment of privileges," &c., "being futile," and simply so, I am sure, for want of due consideration of the matter; though truly I know it has been argued thus, and to me by a good old friend in London last week, who was firmly convinced that the College funds *would* suffer from a withdrawal of subscriptions. Surely this is a mistake. Can it be supposed for one moment that one subscriber in a hundred subscribes because he believes he shall have a *protégé* next year to bring forward for its benefits? Certainly not. "Nemo sibi vivat" is the motto. The funds are *now*, and can only be, kept up by observance of this motto, and this surely is the feeling of every true-hearted Englishman! Therefore let us all keep our shoulder to the wheel, help each other, and instead of the funds decreasing, they will increase, and so afford means for at least a fourth or fifth *more* Foundation Scholars. My son has kindly assisted me to wade through rather a great undertaking, and what is the result? It is this: For the coming election I have received upwards of 30 canvassing cards; in these cards no less than 566 names are given of persons—patrons we will call them—who have "strongly recommended" the cases. Of these 566, how many do we find as subscribers in the College list for 1870? Just 202! And how many of these remaining *non*-subscribers have modestly had the asterisk affixed, by whom "proxies will be thankfully received"? More than 100! It is, no doubt, all very good and kind in people thus to lend their names. But "what's in a name?" Would they not most of them give money also if asked? A little money only I say, not to be felt by a vast proportion of them, when we see so many ladies, lords, bishops, clergy, and rich medical men as well, who so lend their names? Can I believe that one in ten of these kind folk would withhold a guinea from the widow or fatherless when he is told that by so doing he is virtually *ensuring* the election of her or the orphan within a given period, and without the cruel outlay of from £30 to £50 for each annual canvass? Certainly not! And am I really to believe the funds will become reduced because persons will rather withhold subscriptions? No! I cannot see it; neither will I believe that one person in fifty will do so. But suppose we give a small margin, and persuade ourselves that these 202 out of 566 will withdraw their subscriptions. What then? Why even then the amount of contribution will be greater than it has been, upon the principle I am about to advance; and if that principle should be entertained and carried out (as I hope it or something better will), a contrary state of things will become obvious.

I must confess to ignorance when I say I am not conversant with the system of election adopted at the Royal Albert Orphan Asylum, as referred to by Mr. Felce. Therefore I am thrown on my own resources for a remedy; and having encroached thus much upon your valuable columns, Sir, if you will kindly bear with me in a few more words, I would, with great deference and much respect, address them more particularly to the Council of the Royal Medical Benevolent College, trusting they will pardon my obtrusion, and set down all to zeal.

To soothe, then, the hearts of sorrowing widows, to spare their (may be) almost empty pockets, I would fain suggest and apply a remedy. It should be something like this—viz.: The election of both Pensioner and Scholar should be vested in the hands of a working Committee of the Council. The canvassing cards should continue as heretofore, except that instead of some thousands, *one* only, or at most one for each of the Committee, would be required. This card should contain as many "strongly recommending" names as heretofore if they will, but at least *ten* to testify the legitimate or true nature of the case; and each person so testifying shall, if not already a Governor, contribute one guinea to the funds of the College, as a kind of entrance and full fee for the respective case; and surely if it should happen that these lords and bishops be not able to afford more than their names, the widow is badly off indeed if some near friend or relative will not make up this minimum sum of £10. She will then be far better off than now, having to pay *at least* £30 for each annual canvass; whereas this £10 or more shall indemnify her against any further call for money, and, above all, give her the almost absolute guarantee that her son will be elected within at utmost four or five years, as is the dread uncertainty now, *unless* the candidate shall be unhesitatingly and validly rejected by the Committee as ineligible. The Committee will, of course, have opportunity and full power to select the most indigent and pitiable case, and I will venture to say, by this means, there will never again be a boy elected the *first* time by a majority of 5000 votes, even though he be one of fourteen children, and his mother enjoying an income of £900 or £800 a year!

Yours obediently,
East Rudham, May 20th, 1871. FRED. MANBY.

PRACTICAL PHYSIOLOGY.

Mr. Alfred Fowler.—We commend our correspondent for not supposing that expressions of opinion such as those contained in his letter will cause physiologists to modify their method of teaching practical physiology. He expresses his "abhorrence of the cruelties practised upon animals, as reported in THE LANCET, to teach physiology"; and, starting with this stirring sentence, he indulges in some sensational writing about "torturing cats," &c.; "bold, revolting cruelties of man on the one hand, and the sufferings of the animals on the other, crying out for some one to have mercy," and he appeals to our sense of right that we should "consider the animal bound, gagged, and tortured." After reading these sentences, we looked again to the commencement of his note, in order to be sure that we were not mistaken in concluding that he really refers to the lectures on Experimental Physiology at present appearing in our pages. We can only account for his remarks by supposing that his feelings are morbidly sensitive, and his imagination so exceedingly vivid that to him a rabbit fastened to a table, and rendered insensible by opium or chloral, becomes an animal "bound, gagged, and tortured," and "crying for mercy" the moment an experiment is performed upon it, feelingless though it be. We trust that our correspondent will study the significance of the word *insensibility* in this connexion, and that he will peruse with greater care the lectures we have placed at his disposal, in order that he may get a fair idea of the humane manner in which the experiments are done. We abhor torture and cruelty as much as our correspondent can, and it is because Dr. Rutherford's lectures show how experimental physiology may be taught without subjecting animals to "cruelty or torture" that we have placed them before our readers. We should have done this even though they had not rendered our readers familiar with many effects and experiments which are by no means "well known," because there is a general demand for a knowledge of those experimental methods by which many discoveries in medicine may be brought out. It is essential that medical students be instructed in these methods, and we think our correspondent and others ought to be glad that physiologists adopt procedures so humane as those to which we have given publicity.

MURPHY ANNUITY FUND.

First List of Subscriptions received.

Dr. Arthur Farre	...	...	£5	5	0		
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Wm. Richard Davies, Esq.			0	10	0		
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G.	...	...	1	0	0		
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Amount of subscriptions to the present time, £205 6 6

T.—We must decline to accede to our correspondent's request. If he desires the advice of some London physician, he had better inquire of his own medical attendant as to whom he should consult.

MEDICAL RELIEF OF THE POOR IN WORCESTER.

MR. JOHN STALLARD, one of the Committee of the Worcester Dispensary, has written to the Poor-law Board, complaining that Dr. Woodward recommended a poor woman who was in receipt of relief to apply to the dispensary for medical assistance. Dr. Woodward, in reply, states that he was not aware that she was a pauper, and that if she were so, he had not received an order to attend her. The Poor-law Board have written to Mr. Stallard, to the effect that whatever advice was given to the patient by Dr. Woodward was of a private nature, and did not warrant any interference on the part of the Board. It appears that Dr. Woodward attended 500 more cases last year than all the medical officers of the dispensary put together, and it seems to us only natural that Dr. Woodward should object to volunteer attendance upon a person who had been attended at the dispensary previously.

Fowles could not recover for services rendered by an unqualified assistant. Such services have no legal value.

A General Practitioner, (Birmingham.)—Like our correspondent, we are utterly incredulous. Will he oblige us by a loan of the book, that we may review it?

COOL!

To the Editor of THE LANCET.

SIR,—The accompanying lithographed circular has been put into my hands by a nobleman, to whose wife it was sent by post. The unblushing effrontery of the document is happily yet a novelty in this country, and I am convinced you will willingly lend your aid in denouncing it. This document has probably been widely distributed through the West-end by the agency of the Court Guide, and a little farther publicity will do its authoress no harm.

I am, Sir, your obedient servant,

Curzon-street, May-fair, May 29th, 1871. W. S. PLAYFAIR.

12, Vigo-street, Regent-street.

Mrs. Lampson desires to make known to mothers of families her lately discovered secret, by which the power is placed in the hands of those who may use it of limiting the extent of their families.

The use of medicine as noxious drugs is avoided, the most delicate ladies may safely adopt it, and Mrs. Lampson can assure those ladies who may favour her with their confidence that her system is perfectly harmless, but quite effective, as a short explanation and trial will show.

Appointments in the first instance by letter only.

The fee will be ten guineas, including all charges; but this will only apply to advice given at Mrs. Lampson's address. To ladies who may wish to be waited on at their own homes the fee will be proportionately higher.

In conclusion, Mrs. Lampson asks those who may read this not to confound it with anything indecent or immoral, as it is simply an effective antidote to that bane of young mothers' lives—namely, large families.

Hours of attendance from 11 to 4 o'clock.

IT IS AN ILL WIND, &c.

WE read in the *Shrewsbury Chronicle* that, in consequence of the "recent fatal case" of small-pox, nearly everybody in Oswestry is availing himself of the valuable services of Dr. Beresford, of the firm of Blaikie and Beresford, who is at home from eleven to one every Tuesday for the reception of vaccine patients free of charge. "On Tuesday last the surgery was literally besieged with applicants, from babes in arms to adults of mature age." Some of our metropolitan vaccination stations might be made a little livelier if the services of the Shrewsbury penny-a-liner could be procured for a few weeks.

Edin.—Our correspondent will find full directions for making a post-mortem examination in Heath's "Minor Surgery."

J. P. T.—We know of no such work.

St. Andrews.—We presume that our correspondent cannot charge obstetric fees in such cases.

Dr. Smart's communication has been received.

MODIFICATION OF DUPUYTREN'S SPLINT.

To the Editor of THE LANCET.

SIR,—I see in your issue for May 6th, an inquiry as to whether there has been any modification of Dupuytren's splint invented. I beg to inform you that such a splint has been constructed by Dr. Swan, F.R.C.S.I., late house-surgeon to Dr. Steevens's Hospital, Dublin, and found there to be a great success. The description of the splint is given in the *Dublin Quarterly Journal*, and is also published in pamphlet form by Messrs. Fannin, Grafton-street, Dublin.

Your obedient servant,

Tralee, Kerry, May 28th, 1871. G. A. DENNY, M.A., M.B.

P.S.—The splint may be obtained from Messrs. Read, Surgical Instrument Manufacturers, Parliament-street, Dublin.

V. A. C. asks us for an opinion on some disputed points. The bearing of facts and figures goes to show that it is better to have four vaccine vesicles in primary vaccination. We consider, for our part, that two or three vesicles would answer all purposes in cases of revaccination. A great mistake is made in vaccination and revaccination in taking "no for an answer." If the result of the operation in either case be a failure, it is well to try again.

R. S. P. T.—The consent of the guardians is, we apprehend, not necessary, the authority of the Lords of the Council to all public vaccinators to revaccinate having been given in accordance with the provisions of the Act of 1867.

ADMINISTRATION OF CHLOROFORM.

To the Editor of THE LANCET.

SIR,—Have any of your readers observed that in all cases of death from chloroform, the administering agent has been a handkerchief or lint? I believe this has been almost, if not quite, unexceptional.—Yours, &c.,

Worcester, May 22nd, 1871. W. WOODWARD, M.D.

CLIMATE OF JAMAICA.

ONE of the Jamaica journals devotes considerable space to the insertion of statements received from resident medical men, planters, ministers, and others, in refutation of the assertion made recently by a correspondent in our columns, to the effect that "the climate was far from healthy, that 'yellow jack' is very busy at times, that earthquakes are frequent and violent, that snakes are small but very venomous, and that the rainfall from the beginning of August to the end of October is almost incessant." It appears that very full particulars as to the nature of the climate of the colony will be published in a certain forthcoming "Handbook of Jamaica," and those who are anxious to gather information on this point will probably be able to judge more accurately than has hitherto been possible of the real merits of the case.

Megatherium.—The MS. may be obtained by sending to our Office. Our correspondent had better at once make inquiry at the office where he booked the parcel. We would endeavour to insert a short paper on the subject named by our correspondent.

M.D., (B.A.)—We do not remember to have seen the paper.

HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—The wide-spread alarm which prevails on the subject of hydrophobia, and the prophylactic attention which it is receiving in municipal quarters, have induced me to solicit space in your spirited journal for a few remarks upon this disease.

First. It is well known that canine madness is not restricted to, or specially frequent in, hot weather, and that the male animal is generally the subject of spontaneous hydrophobia. The alarming increase of dogs kept by ladies seems to be due to reduced taxation, and is exciting the just alarm of the inhabitants of nearly every town and village in the kingdom. Had the Chancellor of the Exchequer proposed a restoration of the previous tax on *dogs* instead of a duty on *matches*, he certainly would not have found it necessary to enter the House of Commons by the back door in order to escape the fury of a London mob.

The celebrated Baron Dupuytren treated twenty-four cases of hydrophobia at the Hôtel Dieu in Paris during his connexion with that institution, and the conclusions deduced from an investigation of the whole subject led to the belief that a dog must become spontaneously mad in order to be able to communicate the disease; and that animals bitten by such a dog were incapable of reproducing the rabid state in others. This doctrine seems to be satisfactory as limiting the transmissibility of the poison beyond the second degree.

The only case of hydrophobia that I have ever treated took place in a drunkard, who had contracted or imbibed a predisposition to delirium tremens. This wreck of humanity received a bite from an angry dog, and the wound caused by the bite was treated by excision and the free application of escharotics. Notwithstanding the careful and assiduous attention which this case received, the man became delirious, and died. I am of opinion that had this madman sustained a compound fracture of a limb, or a severe injury from any other cause, he possibly might have manifested tetanic symptoms similar to those which ended his days; while from such a malady a sober man would probably have escaped. From this point of view I infer that intemperate persons are peculiarly liable to exhibit signs of hydrophobia, complicated with delirium tremens, when exposed to canine aggressions. It has been computed that out of every five persons bitten by dogs spontaneously mad, one person at least will be affected with the malady. Experienced surgeons, however, have no difficulty in diagnosing true hydrophobia from delirium tremens. In the latter there is usually no aversion to the deglutition of liquids; whereas in rabies the patient manifests a strong abhorrence to fluids of every kind, and the rapid prostration from want of food and drink soon closes the melancholy tragedy, even were the affection of the cerebro-spinal axis not in itself fatal.

In hydrophobia the hallucinations are generally dreadful. The patient often fancies himself pursued by demons, and beset by mortal enemies. Some physicians have denied the existence of hydrophobia, asserting that the cases so called were tetanus; but good observers can always perceive a wide difference between the two diseases. In a recent issue of the *Yorkshire Gazette*, one writer asserts that hydrophobia and tetanus are identical. In opposition to this theory, I may state that in traumatic tetanus I have known patients to sink with rational impressions of their approaching dissolution; whereas in hydrophobia, arising from the absorption of a specific poison, characteristic delirium illustrated the mournful sequel.

I have not met with satisfactory evidence that a case of genuine rabies canina has ever been cured. We can mitigate the spasm and quiet the delirium; but the reflex excitability of the medulla oblongata still exists. Hypodermic injections of atropia over the spine might be tried with some hope of relief; but in the present state of our art the only perfect safety to one who is bitten by a rabid animal is the immediate and complete excision of the part affected, followed by cauterisation. I am not aware that carbolic acid has ever been recommended in rabies canina. The application of this acid in other malignant diseases has immortalised the name of Professor Lister, of Edinburgh. I have a firm belief that in the hands of an ingenious and skilful surgeon it might prove a specific in hydrophobia.

The practical deductions to be drawn from the foregoing observations are as follow:—That the owners of dogs be admonished by the constituted authorities not to allow their dogs to stray about in the public streets, under the penalty of having them apprehended and destroyed at the proprietors' expense; that hawkers and others frequenting farmhouses be warned to take due precaution in protecting themselves from the canine armies to be met with in some of the farmsteads or foldyards; that persons encouraging dogs to bite or intimidate uneffending individuals be summoned before the magistrates, and fines levied in proportion to the offence; also, that petitions to Parliament be forwarded, praying for a restoration of the dog duty (shepherds' dogs, as heretofore, of course to be exempt). This last proposal may seem to be a political retrogression; but the match-box budget of the present Ministry will serve as a precedent for the guidance of their successors.

Mr. Editor, as a physician, I have drawn your attention to the danger of hydrophobia, and it will be for your consideration and the sagacity of the local authorities to give practical effect to the suggestions herein adduced.

I am, Sir, yours respectfully,

Bridlington, May 16th, 1871. ANDREW ALLISON, M.D.

SALARY OR WAGES?

THE Gateshead Local Board of Health, having decided to establish a Small-pox Hospital, have issued advertisements inviting applications for the following appointments:—Head nurse, salary £25 *per annum*; assistant-nurse, salary £16 *per annum*; cook and general servant, £16 *per annum*; medical officer, who will be expected to visit the hospital at least three times a day, salary £2 2*s.* *per week*,—all the aforesaid appointments being terminable by a month's notice from either side. The notion of offering a weekly wage for medical services, and of putting the medical officer on the same terms as the cook in respect of notice for vacating office, will, no doubt, be fully appreciated by the profession at Gateshead. By the way, the Board consider that a public vaccinator is not eligible for this medical visitorship at the Small-pox Hospital; the reasons for which exception are not, however, stated.

GOODSIR MEMORIAL FUND.

DR. DYCE DUCKWORTH requests that the following subscriptions to the above Memorial may be announced in THE LANCET:—

Dr. Andrew Clark ...	...	£5	0	0	Dr. J. Gordon Smith, London	£1	1	0
Dr. Day, F.R.S., Torquay ...		1	1	0				
Dr. Otté, ditto ...		1	1	0	Dr. T. Clifford Davies, Bury	1	1	0

DR. ARBUTHNOT.

THE necessity for a biography of this very distinguished physician, *savant*, and humourist may be inferred from the blunders constantly made about him. Even a man of science so accomplished as the Rev. Samuel Haughton, M.D., can say of him that he was physician to King George I.; the fact being that he was physician to Queen Anne, and ceased to hold office at Court at her death. Dr. Haughton was thinking of Prince George of Denmark, to whom Dr. Arbuthnot was also physician.

A CORRESPONDENT (Twickenham) is informed that Dr. Brown-Séquard is not at present in this country.

MEDICAL FEES.

To the Editor of THE LANCET.

SIR,—As I was some time ago, with reference to a paper read before the Medico-Chirurgical Society of this city, openly charged with exaggerating certain states of the profession here, perhaps you will kindly permit me to place before your readers the following facts.

During the year I was consulted on at least *eight* occasions by a well-known merchant in business in this city. He recently requested from me a note of his account, which I sent him, charging him, as I thought, the moderate fee of £2 2*s.* for the *eight* consultations. You may judge of my surprise when, on calling to pay his account to-day, my patient gave decided expressions of surprise at his being charged so much for merely calling at my office "*to ask my opinion in a friendly way*," and, as usual, referred to the small charges made by a gentleman occupying *not the least* prominent position in the profession in Glasgow.

I ask your readers whether demeaning pretentious positions in this manner is either friendly to junior practitioners, calculated to evoke professional respect, or to uphold the dignity of the profession? It is the low fee system in the *higher* grades of the profession that has called forth the protean forms of quackery with which we are afflicted; and I, for one, am persuaded that so long as it is thus indulged in by men of the highest positions in their profession, and not unfrequently independent of it, they will seek in vain for professional countenance or respect from their junior brethren.

Allow me just to remark that I cannot charge myself with a tendency to make public charges in an underhand way, and that if necessary names may be forthcoming. Yours, &c.,

Glasgow, May 20th, 1871. D. CAMPBELL BLACK, M.D.

ERRATUM.—On p. 703, at the end of Mr. Mogford's letter under "Royal London Ophthalmic Hospital," read "Mr. Cowell's first appointment dating as far back as 1861, Mr. Tay's 1866, and Mr. Adams's 1867."

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Gull; Dr. Grailly Hewitt; Dr. Letheby; Dr. Playfair; Mr. J. Paget; Dr. Smart; Mr. J. Hunt; Dr. Coombe, Castle Cary; Dr. Paterson, Trowbridge; Dr. Denny, Tralee; Dr. Thompson, Leamington; Mr. Sutton, Smethwick; Mr. Watkin; Mr. Hurst, Brackley; Mr. Sharpe, Macclesfield; Mr. Smith, Castlebar; Mr. Porter, Dursley; Mr. White, Chichester; Dr. Alexander, Halifax; Mr. Deardsm, Great Harwood; Mr. Wraith; Mr. Aytoun, Ayr; Mr. Parker, Ulverstone; Mr. Wood, Leicester; Mr. T. P. Lever, Bacup; Mr. Stevenson, Ormskirk; Mr. Forman, Bedale; Mr. Braxton; Mr. Hare; Dr. Williams; Mr. Barber; Mr. Burrows; Dr. Day, Stafford; Mr. Beck; Mr. England; Rev. H. W. Holland; Mr. Davis, Liverpool; Mr. Phillips, Raglow; Mr. Cartwright; Mr. Price; Mr. Branson; Mr. Walker, Milan; Mr. Jessopp; Mr. Cooke; Mr. Scott, Dumfries; Dr. Farquharson, Berlin; Dr. Duckworth; Mr. Weston, Oundle; Mr. Fowler; Mr. Duncon, Westerham; Mr. Shepherd; Mr. Moore; Mr. Ryan, Dublin; Dr. Francis, Acton; Mr. Wheatley; Mr. Fox; Mr. Harper; Dr. Kraus, Vienna; Mr. Greeley, Wells; Mr. E. Burnett; Mr. Robert, Festiniog; Dr. Maher, Egremont; Mr. R. F. Stephens, St. Austell; Mr. Grove; Mr. T. Wilson; Mr. Cornish; Mr. Morton; Dr. Broom, Sheffield; Dr. Fenwick, Canada; Mr. Dearden; Dr. Way; Mr. Smith; Mr. Seeley; Mr. Smyth; Dr. Walker, Liverpool; Mr. Rutter, Longton; Mr. Horsley; Mr. B. Pratt; Dr. Dickson, Buxton; Dr. Smith, Baltimore; Mr. Bennett, Frome; Mr. A. B. Edwards, Dursley; Mr. Milne, Dawlish; Dr. Davies, Bala; M. Le Dews; Dr. Rabagliati, Bradford; Dr. Curran, Youghal; Mr. Arkman; Dr. Charlesworth, Carlton; Dr. Franklyn, Formosa; Dr. Taylor; Mr. Matthews, Canterbury; C. A. E.; A General Practitioner; Query; Greyite; Fusbos; &c. &c.

Liverpool Daily Post, Bridgwater Mercury, Southend News (New Zealand), Norwich Argus, Dublin Freeman's Journal, Leeds Mercury, Macclesfield Courier, Lincoln Gazette, Berwick Journal, and *Pulman's Weekly News* have been received.